

# *The American* **CINEMATOGRAPHER**



**NOVEMBER 1932**


**25 CENTS**



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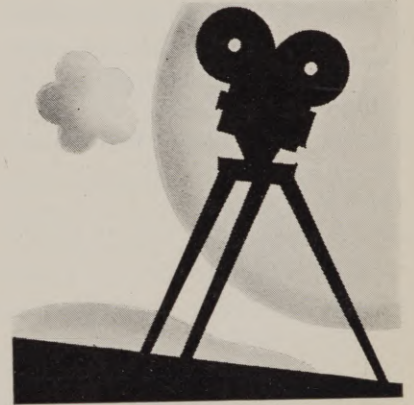
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# A Swedish Explorer Discovers Hollywood

## and an EYEMO

CLINGING to a narrow Faroe Island rock-shelf in a tempestuous gale struggling with a large studio camera, the light coming and going "with maddening irregularity," Captain Sten de Nordenskiöld of Sweden's Royal Geographic Society, found himself wishing devoutly for a "light camera, portable, mechanically driven—a camera that one could light and operate with the quickness and accuracy of a rifle."

Arrived in Hollywood, the Captain found the camera he had been looking for — the Bell & Howell Eyemo 35 mm. hand camera. And through its quick eye, the Captain caught so much of all that is spontaneous and natural and admirable in Hollywood, that his Eyemo-made film, "Hollywood



Captain Sten de Nordenskiöld with his Bell & Howell Eyemo

City of Celluloid," is now on its way to the cinema theatres of the world.

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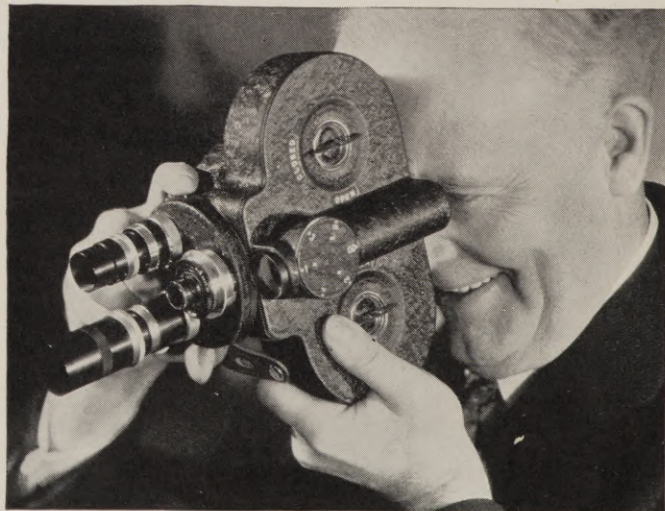
Write to Bell & Howell for full and complete data on the Eyemo, which is priced, tax-paid, at \$450 (motor and magazine extra).

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THE AMERICAN SOCIETY OF CINEMATOGRAPHERS was founded in 1918 for the purpose of bringing into closer confederation and cooperation all those leaders in the cinematographic art and science whose aim is and ever will be to strive for pre-eminence in artistic perfection and technical mastery of this art and science. Its purpose is to further the artistic and scientific advancement of the cinema and its allied crafts through unceasing research and experimentation as well as through bringing the artists and the scientists of cinematography into more intimate fellowship. To this end, its membership is composed of the outstanding cinematographers of the world, with Associate and Honorary memberships bestowed upon those who, though not active cinematographers, are engaged none the less in kindred pursuits, and who have, by their achievements, contributed outstandingly to the progress of cinematography as an Art or as a Science. To further these lofty aims, and to fittingly chronicle the progress of cinematography, the Society's publication, The American Cinematographer, is dedicated.

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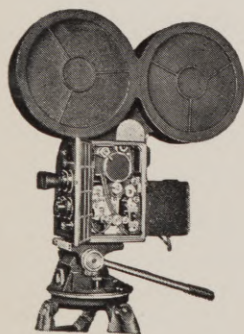
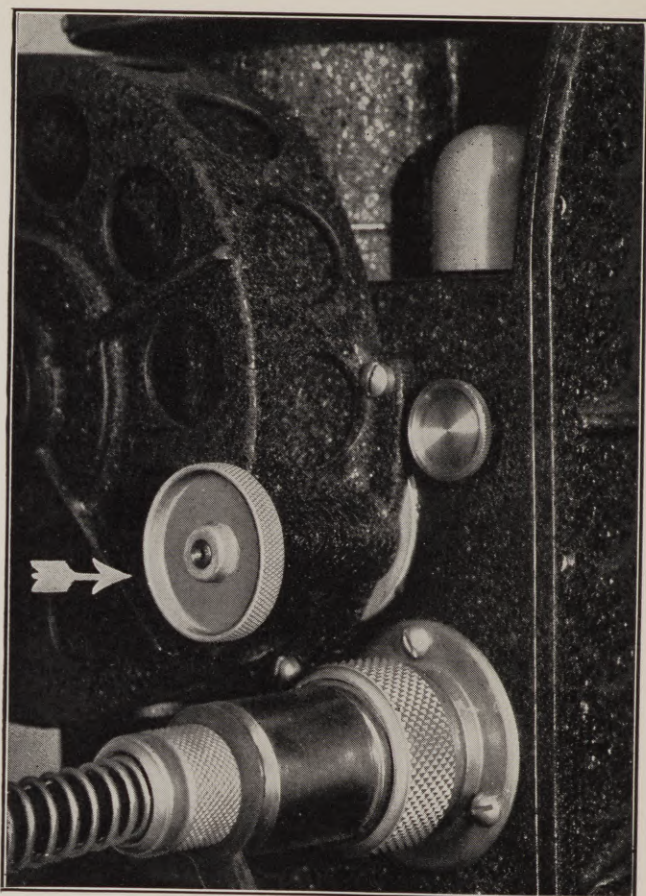
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# Industry Endorses A. S. C. Proposed Testing Plan

**E**NTHUSIASTIC encouragement of the plan proposed by the American Society of Cinematographers for testing photographic equipment, methods and materials, both professional and amateur, poured into the Society after the announced intention of that organization to enter upon this work.

Manufacturers and their representatives acknowledged the constructiveness of this idea by letter, wire and personal interview.

Indicating a keen interest in this move, E. P. Curtis of the Eastman Kodak Company wired: "Eastman Kodak Company much interested your plan stop believe that proper handling it could be of real service to industry."

Realizing the benefit this testing will mean to the buyers, J. H. McNabb, president of the Bell & Howell Company, stated: "In its plan for testing both professional and amateur cine equipment, materials and methods, the A.S.C. is undertaking a very sizable task, and one which can be made for decided benefit to buyers of such products and services.

"The Bell & Howell Company will welcome your testing any or all of its products, professional and amateur, present and future."

Concurring with the plan, Smith & Aller, representatives of the Dupont Film Mfg. Corp., remarked: "As representatives of the Dupont Film Manufacturing Corporation, we are keenly interested in the plan of the American Society of Cinematographers for testing as outlined in the American Cinematographer of last month. Both we and the Dupont Film Manufacturing Corporation will co-operate in every way possible."

Believing there will be a great value in an unbiased judgment such as the Society is in a position to give on technical matters, W. H. Carson, vice present of the Agfa Ansco Corporation, remarked in part:

"As manufacturers of various kinds of photographic equipment we are much interested in the article as it appears in the October issue of the American Cinematographer, announcing the intention of the American Society of Cinematographers to set up a testing service which will enable them to make exhaustive tests on all types of equipment and materials used in the industry.

"There is no doubt whatever of the value of an unbiased judgment of various products that may be offered for use, particularly when in this day of exaggerated advertising, claims are made by new and unknown manufacturers for their own products.

## THE TEST TUBE

**WHAT A PIECE** of equipment . . . an article . . . or a method will do in its practical use is the acid test of the worth of that article.

**APPARATUS** designed for motion picture making are the tools of the technician.

**THE PERFORMANCE** . . . for him . . . must in all instances be the final test.

**VALUE** is in the practical service it will give.

"If anything is to be accomplished in establishing a testing bureau of this kind, a step must be made some time."

Expressing his confidence in the American Society of Cinematographers to conduct these tests, A. Traeger, president E. Leitz Inc., manufacturers of the Leica Camera, had this to say: "It gratifies me to learn that your splendid organization has taken a special position to clarify the deluge of information now available for the various makes of photographic equipment. Naturally the amateur as well as the professional photographer are keen to learn about all the very latest improvements in their particular fields. Consequently, the only practical way to sift through so much information is to have an unbiased organization such as the American Society of Cinematographers conduct rigid tests of all photographic equipment.

"I will welcome an opportunity to cooperate with your organization and the engineers associated with your technical division in bringing about this new service for the thousands of people who appreciate the value of authoritative information behind every product they purchase."

While Willard D. Morgan, manager of the Photo-Optical department of the E. Leitz Inc., supplements Mr. Traeger's remarks thusly: "Undoubtedly your organization will be in a position to produce excellent technical service for the many amateur and professional photographers throughout the country. I will be very pleased to see that your technical department has an opportunity to report on the merits of the Leica Camera whenever you are ready. Naturally if it is possible for us to pass the requirements established by your technical department, we will be very pleased to use your approval mark in our advertisements or possibly in our publications."

Believing the testing to be done by the American Society will give the users of equipment greater confidence in that equipment, R. E. Farnham, engineer of the General Electric Company remarked: "The program as outlined in the October issue of the American Cinematographer is certainly a most ambitious one and should give the cameraman greater con-





Harry  
Lachman

THE MOTION PICTURE industry in Europe is not only a healthy infant, but a growing one. Talking pictures, restricted import-quotas, and a number of other factors have combined to produce this result: accordingly, in France, England, and the other major producing centers of the continent, both bona fide domestic production and "quota production" by branches of the leading American concerns are distinctly on the increase. In many countries there exists a serious shortage of product, even to the extent of forcing many of the major first-run theatres to play revivals of popular silent and talking pictures. Only today, for instance, I received a newspaper clipping telling of the revival of one of my own pictures, "Under the Greenwood Tree"—one of the first talking films produced in England—at one of London's major cinemas. Under such conditions, and with the importation of American productions confronted by increasing restrictions, it is inevitable that European production must continue to grow.

Production in the major studios abroad does not differ greatly from its counterpart in Hollywood. The same factors enter into the problem on both sides of the Atlantic: pictures must be saleable; they must be turned out on schedule, and within a definite budget; and they must be primarily motion pictures rather than photographed novels or plays. But here the resemblance ceases: there are definite factors in the European centers and in Hollywood which create distinctive conditions.

In Europe, for instance, while the actual production schedules are about the same as those allowed here, the budgets are considerably lower. The average budget for a better-than-average picture is in the neighborhood of \$100,000. A budget of \$200,000 is most unusual, and such a film is inevitably a "special." Program features may cost as little as \$50,000—or less. Yet it does not by any means follow that the quality of the product must suffer from these financial limitations: it simply indicates that in many respects, costs are lower there than is the case here in America. Material costs are, as a rule, rather less, and salaries are far smaller than is general here. The prices paid for story material are more reasonable. Most important of all, studio overhead is vastly lower: there are

## Technical Ingenuity

practically no contract players, and few contract stars in Europe. Artists are engaged by the picture, and only for specific parts. Practically the only people under regular, long-term contracts in the European studios are the cinematographers: this is because there is a great scarcity of capable cameramen throughout Europe. The free-lance cameraman is a rare bird, indeed—and one who (if he is capable) is very likely to be snapped up by some studio and put under contract, willy-nilly. Many of the outstanding cameramen in Europe today are either Americans or Europeans who have had experience in the American studios. Among these men are Harry Stradling, Phil Tannura, Ted Pahle, Georges Benoit, A.S.C., and Henry Gerard, who has just returned from some time spent in the British studios. On the other hand, there are, too, a number of fine artists whose background is exclusively European, and whose achievements have gained them equal recognition: among them are such men as Rudolph Mate, Claude Friese-Greene (whose father is recognized as one of the inventors of the cinema), Gunther Rittau, Gunther Krampf, and others too numerous to mention here. In the future, I predict, the number of American cinematographers working in Europe will be considerably augmented, for the opportunities are great, and the need for such men very pressing.

In so far as the cinematographer is concerned, studio conditions in Europe are quite similar to those here in Hollywood. True, the studios are smaller, and less completely equipped; but in the major studios, the equipment, limited though it is, is good. Paramount's new plant at Joinville, near Paris, is exceptionally complete; and some of the British studios are also relatively well-equipped. In no case, however, is there the profusion of either equipment or trained technical personnel that there is here in Hollywood. In England and France, Bell & Howell and Mitchell cameras are the rule, with either Western Electric or RCA recording. The French DeBrie silent camera—an excellent machine—is also extremely popular, especially with the native European cameramen. In Germany, DeBrie and Askania cameras are more common, and recording is exclusively by Tobis-Klangfilm apparatus, which is not, to my mind, comparable in any way with the American recorders. Arc lighting is used far more extensively than is the case here in America; in Germany, incandescent lighting is practically unknown, while in England and France both types are available. In some of the studios in the latter countries, American units (principally Mole-Richardson and Kliegl) are used as well as locally-produced ones.

Due to the smaller sums available for production, settings are not always as extensive as is possible in this country. This is not by any means entirely disadvantageous, however, for it forces us to prepare our scripts more carefully, and makes the art-directors, directors and cinematographers exercise their ingenuity to a decidedly greater extent than would be likely if we were able to build exactly what we wanted every time. It is significant that one of the three nominees for the Academy award for Art



# Reduces European Production Costs

by

**Harry Lachman**

Direction this year is Lazare Meerson, from the Tobis Studio in France.

Due to the proverbially uncertain climate—especially in England—location work is practically impossible. In a country where the sun may not shine for weeks at a time, one can't, obviously, plan a shooting-schedule of, say, three weeks, and have any assurance at all that the sun will put in an appearance during that time. In the past year or so, however, this disadvantage has been more or less offset by the introduction of process photography as it is known and practiced here in Hollywood. Both the ordinary transparency and the projection-transparency processes are used with a high degree of success in the British and French studios. In Germany, on the other hand, where one would naturally expect to find skilled process-technicians, such work is practically unknown. The Germans partially make up for this by their skill in the design and construction of sets.

The weakest link in Europe's production-chain is the laboratories. These, as a rule, are unbelievably bad. However, Paramount's laboratory at the Joinville studio is an exception. It is very good, and there are one or two rather decent ones in England: but on the whole, the laboratories in Europe do not compare with even the lesser ones here in Hollywood. None of the European laboratories seem able to get anywhere near the tonal quality and gradation that is common here, while in low-key lightings, the blacks are not nearly so rich. And yet, the same film is used, and by equally expert cinematographers.

The art of makeup is not nearly so well understood in Europe as it is in Hollywood. The Makeup Artists Association might do well to send some missionaries to the foreign studios! Part of the blame, however, must rest with the producers, directors and stars themselves, for they do not as a rule pay so much attention to having the players (especially the women) look their best. In some cases, I suppose, this is due to the ill-conceived notion that paying proper attention to these details denotes a lack of artistic virility; in other cases, it is just plain carelessness. At any rate, note the difference that careful American makeup, hair-dressing and costuming make in any European actress who appears in American pictures. Personally, I do not feel that the Hollywood attitude is any sign of artistic weakness: quite the contrary, it is a sign of artistic thoroughness—and commercial foresight, for, after all, the public that supports us by paying its quarters and shillings and francs at the box-office does so in a great measure because it enjoys seeing its beautiful favorites—its Joan Bennetts, its Janet Gaynors, its Lilian Harveys—at their



**Harry Lachman and Rudolph Mate  
Shooting a Picture in Europe**

best. Indirectly, the European producers must appreciate this—for if a cameraman shows that he can photograph women well, he need never be out of work.

In the less tangible conditions confronting a cameraman in Europe, his position is in some ways different from that of an American cinematographer. There, the cameraman is not only a highly important person on the set, but also away from it. His name is better known to the public. There is a picture now running in Europe—Carl Dreyer's "The Vampire"—which is recognized as a success solely by virtue of the public's appreciation of Rudolph Mate's superb photography. Moreover—the press acclaimed the picture solely as a photographic masterpiece, and the public welcomed it on that basis!

The European cinematographers, however, do not have the advantage that their American confreres have in the American Society of Cinematographers. It has been my privilege to have worked with several American Cinematographers in Europe in the past—among them such artists as John Seitz, A.S.C., and Lee Garmes. From them I have learned a good deal about the Society and its achievements, and of its value in every phase of the American Industry. Therefore I have been very glad to learn that a similar organization is being established in France, the Societe des Cinegraphistes Francaises, by men who, like Georges Benoit, A.S.C., and others, have known at first hand the value of such an organization.

**EDITOR'S NOTE.** (The author of this article, Harry Lachman, has recently joined the staff of the Fox Studio. Mr. Lachman is an American who has achieved distinction abroad as a painter, photographer and motion picture director. He is one of the few contemporary painters with more than a single painting in the Luxembourg Museum in Paris, where four of his works are on permanent exhibition. He has also been decorated with the Legion of Honor by the French Government for his artistic achievements. In motion pictures, he has directed for the French and British divisions of Paramount, Metro-Goldwyn-Mayer's British Studio, British International Pictures, and others, where he has gained an enviable reputation for his understanding of the aims and problems of the cinematographer. Among his more recent films, which combine high standards of both dramatic and pictorial artistry, are "Under the Greenwood Tree," "Aren't We All," "Mistigri," "The Outsider," "La Belle Mariniere," "La Couturiere de Luneville," and "Down Our Street." The latter production was recently previewed to the Hollywood trade press, and acclaimed as one of the most noteworthy productions to come out of England. It is reviewed in this issue.)



# New Method Revives Interest in Disc Recording

THE EARLIEST TALKING pictures made use of wax discs similar to commercial phonograph records for the recording of sound. Edison's first experiments with the Kinetoscope—the ancestor of all moving picture apparatus—in 1895, made use of his then recently developed phonograph for the production of living, talking pictures. At several times during the decades that followed both Edison and others made attempts to popularize talking pictures, synchronizing disc records with motion picture film, but with little success due to difficulties in synchronization, recording and amplification.

When, in 1926, the Vitaphone made its first appearance, ushering in the talking picture as it is known today, disc recording was used for the sound component. Since then, however, rapid advances in equipment and technique for recording sound on film, together with a number of notable commercial advantages of sound-on-film recording, have made film recording supreme in the motion picture field. Recent improvements in disc recording—notably a revival of the vertical-cut record and the introduction of a new, unbreakable and practically non-inflammable cellulose acetate record-material—bid fair to rescue the disc process from the state of desuetude into which it has fallen. We quote herewith technical descriptions of the new process from communications from the engineers of Electrical Research Products, Inc., who have developed it.

"There are numerous methods by which sound energy may be stored or recorded in order that at some subsequent time a recreation of the original sound may be heard. Of these methods the two best known are the so-called sound on film or optical method and the sound on disc or mechanical method. There are two well known types of optical recording, namely, variable density and variable area. There are also two types of mechanical recording, namely, lateral cut and vertical cut. Of these two mechanical methods, the lateral cut is by far the best known and has been the most widely used to date. The vertical method has, however, been used to some extent as, for example, the early Edison or hill and dale record. The last few years of development, however, have led the engineers of the Bell Telephone Laboratories to the conclusion that this method of vertical recording, heretofore discarded as unsatisfactory, had in reality certain fundamental advantages particularly insofar as fidelity of reproduction is concerned. Preliminary tests gave promise and after careful experimental and analytical studies there now is available the new vertical cut recording method which has a fidelity

of reproduction probably accomplished by no other method of recording at this time. In addition it has been found possible to suppress the ground noise which results in a greater dynamic or volume range of the reproduced sound. Retaining this fundamental idea of vertical cutting the engineers have produced a unit which is being introduced in Hollywood by the Electrical Research Products, Inc.

"With the lateral type of cut a certain amount of space must be allowed between adjacent grooves for the displacement of cut since the cutting motion of the stylus is sidewise to the groove. With the vertical method, on the other hand, this under groove space may disappear completely without harmful effect. With the vertical system, the number of grooves that can be put on a record of given size is very much greater than with the lateral cut method. The reproducing needle with the lateral record is guided by the sides of the groove so that over cutting would permit the needle to slip into an adjacent groove and ruin the reproduction. With vertical records, however, the reproducing stylus is guided by the bottom of the groove only so that over cutting is permissible to a considerable degree without harm.

"The use of abrasive in the pressing of the finished lateral cut record has been more or less necessary in order to grind the reproducing needle to fit the groove. With the vertical recording method the necessity for the use of abrasive in the final record has been eliminated inasmuch as a reproducing stylus is employed which has been ground to a definite predetermined shape. For this reason the reproducing stylus need never be changed since it has been found desirable to make the pressings of vertical records of cellulose acetate containing no abrasive. Studies have indicated that with the available reproducers for lateral cut records the needle point may fail to follow the center of the groove accurately particularly when the curvatures become great. This tendency is further increased due to the fact that with lateral cut records the sound is recorded with a chisel-shaped stylus and reproduced with a round stylus. The bearing point of the stylus against the groove shifts backwards and forwards as the needle rounds the curve. These effects are illustrated in Figure 1. This failure of the lateral type reproducer to follow the center of the groove naturally results in a considerable amount of distortion in the reproduction.

"In connection with surface noise tests, frequency analyses have been made with a variety of reproducers and record materials. In general these frequency characteristics have been found to be largely influenced by the char-

Continued on Page 34

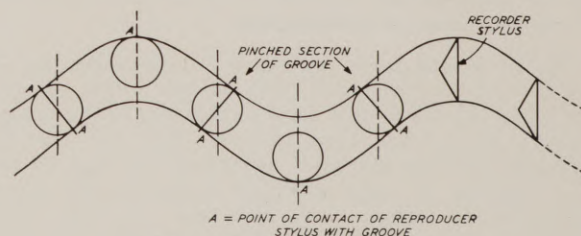


FIG. 1 DISTORTION IN A LATERAL GROOVE

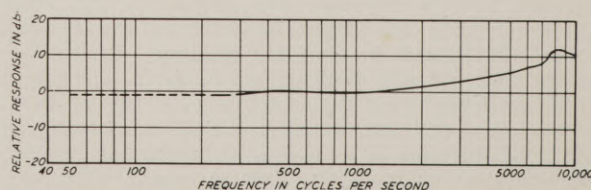


FIG. 2 ENERGY DISTRIBUTION OF SURFACE NOISE FROM A CELLULOSE ACETATE RECORD.



# Keeping Cameras Running

by

**W. Johnson, M. E.**

**A** MOTION PICTURE camera represents a very considerable investment, which is profitable only so long as the camera is running. It is vital to keep the camera not merely in operating order, but in perfect condition at all times.

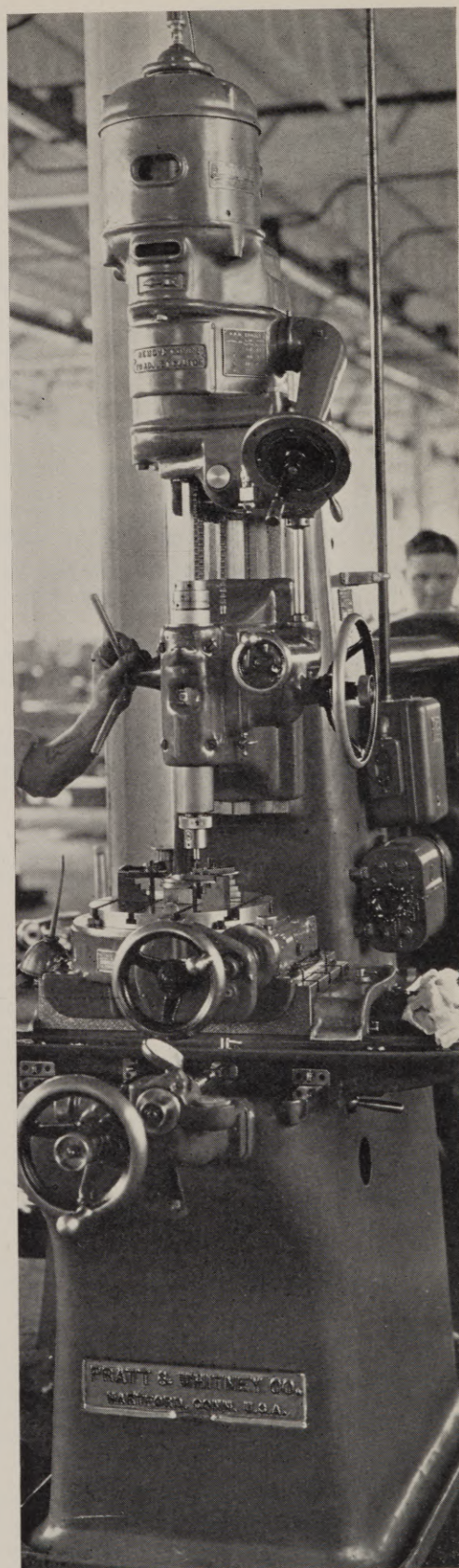
To attain this end, several steps are necessary. In the first place, cameras must be properly and carefully cared for and serviced while in service, and, when repairs are necessary, such repairs and replacements must be made by the most experienced of personnel. Any laxity in either of these phases is poor economy indeed, for it jeopardizes not merely the individual equipment, but also the production upon which that equipment may be used.

The servicing of studio cameras is simple, but exacting. Film-channels, aperture, magazines and so on must of course be kept clean, free from both dust and the microscopic accumulations of emulsion and celluloid which sometimes collect under the best of conditions. Lubrication must be frequent and adequate, without being excessive. Most important of all, movement, lens-mountings and the like should be frequently inspected by skilled engineers, for often a minor adjustment, made at the right time, will obviate a major repair. Since the advent of sound, this phase takes on added importance, for, while a modern, well-built studio camera is sufficiently far from being a delicate instrument, and, despite its precision, will operate acceptably under a surprising amount of abuse, it requires proper lubrication and adjustment if it is to be kept sufficiently silent to operate successfully with modern recording equipment. As they leave the factory, such cameras are quite satisfactorily quiet; but with the wear that is inevitable to continued use, they may become less quiet. Insufficient lubrication or inadequate cleaning will, naturally enough, cause the wear to progress at an excessive rate, with the consequence that the cameras soon become objectionably noisy. With proper lubrication and cleaning, however, this is minimized.

The problem of repair and replacement is important. With proper attention paid to the maintenance of cameras, the need for such repairs is small, and major replacements need only be occasioned by actual breakage. Improper servicing, however, or overhauling and repairing by incompetent personnel, invariably necessitates a greater or lesser degree of replacement.

Since the studio cinema camera is essentially a precision instrument of the highest grade, it naturally requires specialized equipment and personnel if it is to be repaired properly. Experience has proved that such personnel is rarely available outside of the plants of the actual manufacturers of the equipment. Moreover, only in such plants is it possible to routine such work with the requisite degree of specialization. In the manufacturer's plant, for instance, such repair work is handled with the same degree of spe-

Continued on Page 43



**CAMERA UPKEEP** calls for machinery such as this jig borer, as well as many other pieces of equipment specially constructed for the manufacturer of the present day precision cameras.





# TREND

## of the TIMES

● A NEW photographic spark has been developed according to an Associated Press dispatch that is ten thousand times faster than a photographer's flash lamp and as bright as 3000 incandescent lamps rolled into one. This news was carried in a publication of the American Institute of Physics.

This article claims the flash has taken 4200 distinct pictures in one second. Its application, however, at present is limited to photography in darkness as it is not used with a shutter. This photographic spark is described as a small tube operating on the neon lamp principle.

Instead of neon gas, the tube contains mercury vapor and the mercury flashes blue when a current is shot through it.

The light was developed by Harold E. Edgerton and Kenneth J. Germeshausen at the Massachusetts Institute of Technology.

The light has been used to photograph the surging wave which passes through the speeding spring of an engine valve and to "stop" and photograph the vibration of machinery.

It is claimed with the speed flash, clear pictures can be taken on continuously moving film without the "frame" stops created by the shutter.

● WITH the recognition of Sound on 16mm Film the Industrial Field will come in for a great deal of attention. It is the belief that the development of this phase of the narrower film will mark a definite and big stride into this branch of production. While 16mm is not unfamiliar to the industrial picture, still it has been lacking sound, excepting in those instances where a record was made a part of the picture. However, with the greater ease of handling the combined sound and picture on one media there is no question of the great strides this narrow film will make in the business world.

With only one marketable development at the present time on the market, and other engineers striving to duplicate the 35mm in its technical details it is believed that interesting results are promised.

What is termed the semi-professional field will possibly find the greatest use for the sound development. The picture will be taken on 35 mm. film and then reduced to the 16 mm. for distribution by the industrial concern because of the greater convenience for handling and projecting.

● WITH the closing of the Amateur Movie Makers contest the last day of October interest is rife not only among the hundreds of thousands of amateurs, but with the dealers of amateur equipment as to just who will win this prize. The nature of the subject, the reasons for the judges' decisions are vital questions to the Amateur. While the closing date of the contest was October 31, this means that films must show shipment or mailing not later than that date, with the result some are still arriving at the offices

of the AMERICAN CINEMATOGRAPHER, especially from abroad. However, the winners will be announced in the December issue of this magazine, which will be a SPECIAL AMATEUR NUMBER.

In addition to the announcement of the winners, that edition will also contain articles for the Amateur by Ann Harding and Leslie Howard on acting. These two stars will give the Amateur the fundamentals in acting as it is needed by them for the production of the picture they will make. Norman Taurog, who was last year's winner of the Academy Award for his direction of *Skippy*, will also contribute an article on direction with many valuable suggestions to the amateur. Grantland Rice, noted sports writer and famed for his *Sport Reel*, will tell what to shoot in sport events. Elmer Clifton will cover "Scenics" and Joe Hubbell, Pacific Coast editor of *Fox Movietone News*, will assign news events to the Amateur. Blanche Sewell, who edited "*Grand Hotel*," will give from her rich knowledge to the Amateur on the business of cutting and editing. John Arnold will tell about the wonders of the Amateur Camera.

There will be purely technical contributions and contributions from amateurs themselves.

● TAKING his stand between two of Hollywood's largest studios a new type of huckster has sprung into prominence. He sells rolls of toilet paper.

● SEEMINGLY there is going to be a shortage in the "short-ends" market. Many of the 35mm amateurs and semi-amateurs have been depending upon the short ends coming from the studios for a source of supply at a very reasonable price. However, the very efficient studio technician has now discovered a way to utilize these short ends in the studio.

● THE radio police know their Hollywood. The other evening the raucous command went over the radio "Go to empty empty street and see a lady about a nuisance." Hasty and close checking by the police found every supervisor at home.





IN SELECTING directors—and certainly the director is the most important single factor in the success of a motion picture—there are men of the following four professions who are most eligible: Assistant directors—writers—cutters—cinematographers.

Assistant directors, by the very nature of their work, are eligible to promotion if they have the spark of creative spirit necessary to take the responsibility of turning out the product which producers demand. They are handicapped, however, by the fact that they know nothing except their own work. They are not writers, nor do they know how to cut pictures. And they know little about photography.

Writers often qualify as directors, but they are exceptional writers, capable of visualization to a marked degree. They must have the ability to see before they can qualify as directors. Writers who simply create words cannot make the grade. Writers, by the nature of their work, instinctively know some of the fundamentals of cutting. But they, in turn, know nothing about photography.

Cutters learn the business of directing rapidly because they handle the product of the directors. They absorb the mechanical details and the touches of genius which the director gives the picture, but they are not in direct contact with the director during the filming of the product.

Of the group mentioned above, the only man who is actually on the set watching the director work is the assistant director. The writer is in his office theorizing over camera work, guessing at the technique of the director. The cutter is laboring in his laboratory with technical problems.

The assistant is on the line of skirmish, watching the actual work being done. But he, in turn, is not able to give much of his attention to the camera, no matter how observant he is. He has more or less petty details to consider, which dwarf his ability to concentrate on problems not his own.

Now we come to the cinematographer.

He is actually on the scene. That is one thing. Another is that he is working hand in hand with the director at all times. Still another is that the director, in final analysis, depends entirely on his work. Then, too, his work is visual leaving his ears free to hear the words the players speak as the story unfolds. He can very easily make a study of dialog.

In the entire motion picture industry there is no one who can so closely observe the work of a director and who at the same time sees the unfoldment of a motion picture story as can the cinematographer. I do not see why, if a photographer is observing, intelligent and well-educated and has the ability to handle men and women, he should not develop into one of the best directors in the industry.

In fact, there are many examples of camera men who have developed into splendid directors. Of recent days, we have developed our own Carl Freund, cinematographer with 500 pictures to his credit. Rouben Mamoulian is another example of a cinematographer who has made a brilliant success of directing.

You who read the American Cinematographer know who the others are. There is no use filling a page telling you about them. In many cases, they are friends of yours.

A cinematographer who knows camera values, who knows production values, who knows every element which goes into the making of a scene, from a player's gesture to the texture of the curtains on the windows, should go even farther than a director's chair. He can use the knowledge which he picks up as an executive.

The qualities which I think a cinematographer needs to



Carl  
Laemmle  
Jr.

## Why I Choose Cinematographers As Directors

by  
**Carl Laemmle, Jr.**

General Manager,  
Universal Pictures Studio

become either a director or an executive, are (1) observation, (2) creative ability and (3) a sense of the dramatic.

Observation we have already covered. Without it, any cinematographer or anyone else, for that matter, is lost. One who cannot observe cannot learn. And in the motion picture industry as in all industries, there is no time to coach the slacking individual.

Creative ability already is necessary to the cinematographer. If he is a good one, he is constantly devising new lighting effects, unusual camera angles. He will still carry on this function as a director, but will expand his field to deal with human beings and their emotions, story plots and other factors. It is safe to say that the cinematographer who becomes a director and who already has exercised his ingenuity will find that he has much more chance to put his original ideas into effect because of the many more factors involved.

A dramatic sense is absolutely necessary.

On this qualification hangs the success of the camera man who becomes a director.

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# THRU the LENS of the CRITIC

## "SIX HOURS TO LIVE"

photographed by **John F. Seitz, A. S. C.**

"SIX HOURS TO LIVE" is greatly enhanced by the finest photography of many months. It is the first picture since "East Lynne" to give John Seitz, A.S.C. a chance to demonstrate the superlative artistry that has made his name famous among cinematographers for so many years. The production is richly mounted, and Seitz' treatment adds to this richness. Throughout, the tonal quality and gradation are superb, while the dramatic moods—which cover a considerable range—are perfectly sustained. The lighting and composition are in every scene well up to Seitz' high standard of perfection. The lighting, incidentally, covered an unusual range from extreme low-key effect scenes to extreme high-keys, all of which were handled perfectly, and intercut smoothly. The effect-lightings were unusually interesting, and added more than a little to the dramatic effectiveness of the picture, while the special-effects photography—particularly in the revivification sequences—was also noteworthy. The consistent use of moderately heavy diffusion was extremely welcome after the present trend toward exaggerated sharpness. Wilhelm Dieterle's direction was thoroughly photogenic. Camera-movement was held to a minimum, and used only when necessary. The only criticisms possible are that extreme big-head closeups were used rather too frequently, and that Warner Baxter—ostensibly the star of the production—was at times slighted in both composition and lighting during the earlier sequences. In the main, however, the photography is superb—quite the finest since the release of "Arrowsmith" and "Shanghai Express;" it is, if anything, a trifle better than even these two.

## "DOWN OUR STREET"

photographed by **Rudolph Mate.**

RUDOLPH MATE is recognized as one of Europe's foremost cinematographers, and even in this unpretentious little quota picture he proves himself an artist and technician of the first order. His treatment of the picture is consistently fine throughout, with the players excellently photographed, natural and effective lightings at all times, and some very good effect-lightings. The photography is at all times excellently keyed to the mood of the scenes and story, without at any time being obviously "arty." There is quite a bit of transparency process work in the picture—the first that I have noticed in a European film. It is excellently done. There is a world of atmospheric value in the sets and characters. While this department is as a rule devoted to the strictly technical phases of production, one cannot but digress for a moment to pay tribute to Nanci Price for the finest portrayal of maternal psychology that has ever been screened. The film was directed by Harry Lachman, now under contract to Fox Hollywood Studio, who proves himself clearly a cameraman's director, with a fine appreciation of the value of the pictorial as well as of the purely dramatic. His achievements in this unpretentious quota picture, which,

he informs us, was made in less than two weeks, with but three sets, and for a cost of \$36,000, augers well for his future accomplishments here, with the facilities of a great studio behind him, and working in collaboration with American cinematographers.

## "TROUBLE IN PARADISE"

photographed by **Victor Milner, A. S. C.**

WHENEVER the team of Milner and Lubitsch set out to make a picture, audiences may be sure of something outstanding in entertainment, direction and photography; but in "Trouble in Paradise," these gentlemen have excelled themselves. And that tells the story better than any number of adjectives could; for if Victor Milner has excelled his past achievements in photography, and Ernst Lubitsch has excelled his past achievements in direction, what more can be said? Nothing can be added to perfection. "Trouble in Paradise" is a picture well worth seeing several times; first of all because it is entertainment of the finest; and many times thereafter because Milner's photography and Lubitsch's direction reveal new facets as they are studied more and more closely.

## "SMILIN' THROUGH"

photographed by **Lee Garmes.**

IN ANY ONE month, "Smilin' Through" would have stood head and shoulders above all of the month's releases; as it is, "Smilin' Through" is a very close second to "Six Hours To Live." Lee Garmes' treatment of the picture evidences the same artistry which has placed his "Shanghai Express" among the three nominees for the Academy Photographic award, and which, by the time this reaches print, may well have brought him the coveted golden statuette. Inevitably, a story such as "Smilin' Through" demands the utmost in pictorial cinematography; not only has Garmes fulfilled this requirement, but actually exceeded it. Every scene is a pictorial gem, softly beautiful, yet technically perfect. The lighting covers quite a wide range of keys and moods with consummate artistry. The double-exposure scenes of "Moonyeen's" return, and of Leslie Howard's death are beautiful, and rendered more effective by the technical skill which concealed every trace of the mechanical means used in their making. The makeups used by the principal players who essayed dual roles was excellent except in the case of Leslie Howard, whose makeup as an ageing man was not quite convincing.

## "AIR MAIL"

photographed by **Karl Freund, A. S. C.**  
aerial sequences by **Elmer G. Dyer, A. S. C.**

THIS IS BY FAR the best, as well as one of the most accurate of aerial films. Karl Freund's treatment of the body of the production is excellent, if perhaps a trifle uninspired. It is a pity that, before being appointed a director,



Freund could not have had the opportunity of making an American film in the same mood as his German successes like "Metropolis" or "Variety." "Air Mail," however, is excellent, with a finely artistic treatment of its simple and rather unpictorial sets, excellent lightings both of characters and sets—including some quite interesting effect-lightings. But a picture of this type inevitably offers the most spectacular opportunities to the Akeley and Aerial specialists. In this case, Elmer G. Dyer, A.S.C., is the man in question, and he has never done better or more spectacular air work. Paul Mantz, specially credited for the stunt flying, has created a mark for all future pilots to fly at—but he could not have done so had there been a less accomplished aerial specialist than Dyer at the camera. The miniature and process work is probably the most convincing that has ever been put into an aviation film.



### "GOLDEN WEST"

photographed by **George Schneidermann, A. S. C.**

THIS IS ONE of the best "Westerns" in some time. The photography throughout is excellent, especially in the earlier sequences, which are laid in the pre-(civil)-war South. The treatment of the various interiors in this part of the picture is unusually fine, and makes one wish that Schneidermann might occasionally be assigned to more pretentious productions, despite his acknowledged skill in squeezing maximum screen value out of every cent spent on an outdoor film of this kind. In this same sequence, too, there are some noteworthy night-effect scenes. "Golden West" is, however, most interesting as an example of what skilled technicians can do to make an inexpensive picture show up like the proverbial million dollars on the screen. Schneidermann, in the first place, has done amazing things by calling upon his experience in the making of "Westerns:" he has made half a dozen covered wagons seem like a vast caravan, and multiplied eight buffalo into a herd of apparently thousands. The trick cinematographic staff has aided him, using practically every process known, with the exception of miniatures. The transparency and glass shots are particularly good. Last of all—but far from least—the cutter has delved into the files, and come forth with an armful of stock shots from "The Big Trail" and "The Iron Horse" which, cunningly intercut among the scenes actually made for the production, add immeasurably to the production value. This padding, of course, tends to make the photographic quality a trifle uneven, especially some of the ten-year-old scenes from "The Iron Horse." Late in the picture there are a couple of Akeley shots—possibly of ancient vintage—which are extremely bad, being underexposed and badly out of focus. On the whole, however, the picture is a credit to its makers, and merits careful study by both professional and amateurs.



### "THE BLONDE VENUS."

photographed by **Bert Glennon.**

HERE again we see a great director—one who really knows his medium—making elementary mistakes in his attempt to maintain his reputation for greatness. Such a picture was a most unfortunate one for Bert Glennon's return to camerawork after a period in other fields. Yet, working with Josef von Sternberg, who is one of the really few directors who has the technical and artistic ability to be, if he chose, an equally outstanding cinematographer, it should have been a most auspicious occasion. Between the pictorially-minded Sternberg and Glennon, who has done such magnificent productions as "The Ten Commandments" and "The Patriot" (the latter still to my mind the one perfect film ever made), "The Blonde Venus"

Continued on Page 44

## THE MONTH'S THREE BEST



Victor Milner



John F. Seitz



Lee Garmes



# STILL CONTEST WON BY SOPHIE LAUFFER, F. R. P. S.

FIRST PRIZE in the Still Photography contest conducted by the AMERICAN CINEMATOGRAPHER during the past year has been awarded to Sophie L. Lauffer, F.R.P.S. of Brooklyn, N. Y. for her picture "Vanity." The second award is to D. Schneider, Oelwein, Iowa, for "At Grandmother's Knee." The third prize goes to Frank Tanner, Venice, Calif., for "Shattered Dreams." Honorable mentions have been accorded to Nicola Buzzo, C. J. Meyer, Clarence Slifer, Karl A. Barieben, A.R.P.S., Morgan F. Reynolds, Augustus Wolfman, C. J. Belden, Bruce Lindsay, H. M. Armstrong, Allen Fraser, Harry Adams, Gordon Head, Billy Fox and Mike McGreal.

The judging was done before a special meeting of the Board of Governors of the American Society of Cinematographers. The actual judging was done by a special subcommittee appointed for the purpose by President Arnold. This committee was headed by First Vice President Arthur Miller, A.S.C., who is also chairman of the Society's Exhibition Committee.

According to Mr. Miller, this task was rendered unusually difficult by the merit and number of the competing prints. "All of the contestants are to be congratulated," said he, "upon the high standards of quality shown in their work. Judging this contest was a pleasure to all of us, despite the difficulty of selecting the three best prints out of so large a number of excellent ones.

"Mrs. Lauffer's print, 'Vanity,' however, was from the start the unanimous choice of the jury as the best print in the competition. The photographic quality of both print and negative are excellent; the composition and lighting notable, and the conception and treatment of the subject are clearly the work of a true artist.

"Awarding the second prize was extremely difficult. There were a dozen or more prints of a quality that would, in most contests, have merited premier awards. The final selection was made only after a very careful weighing of the individual merits of each of the many prints under consideration. 'At Grandmother's Knee,' submitted by D. Schneider, was eventually chosen for the Second Award because of its virile treatment of a subject which could easily have been rendered mediocre through conventionally sentimentalized treatment. In this print, as in the one gaining First Honors, the artist has avoided the obvious in both subject and treatment, maintaining the highest standards of both photographic and pictorial quality, and adhering to the strictest simplicity throughout.

"Frank Tanner's 'Shattered Dreams,' winner of the Third Prize, is also a splendid combination of simplicity of subject matter and treatment, and a masterpiece of effective mood-lighting.

"Among the Honorable Mentions, the prints contributed by Nicola Buzzo, C. J. Meyer, H. M. Armstrong and Clarence Slifer are particularly noteworthy. Their prints exhibited a high degree of artistic and photographic proficiency, and—especially in the instance of Meyer's contribution—a very pleasing originality of conception."

## HONORABLE MENTION

Nicola Buzzo, C. J.  
Meyer, Clarence Slifer,  
Karl A. Barieben, A.R.P.S.,  
Morgan F. Reynolds,  
Augustus Wolfman, C. J.  
Belden, Bruce Lindsay,  
H. M. Armstrong, Allen  
Fraser, Harry Adams,  
Gordon Head, Billy Fox  
and Mike McGreal





"Vanity" • Sophie L. Lauffer, F.R.P.S.

FIRST PRIZE





"At Grandmother's Knee" • D. Schneider

SECOND PRIZE





"Shattered Dreams" • Frank Tanner

THIRD PRIZE



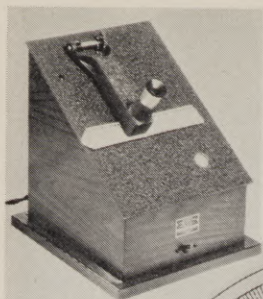


Fig. 15

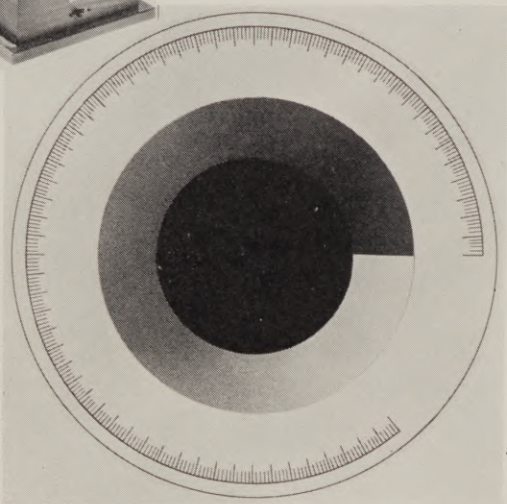


Fig. 18

## Part 18

THE SECOND instrument referred to in the last article which is in common use in the motion picture laboratories at the present time is the Eastman densitometer.\* This instrument is based upon the inverse square law and is designed to fulfill several conditions, namely: ability to read densities from 0.0 to 3.0; capable of measuring very small areas ( $\frac{1}{2}$  sq. mm.); the same light source illuminating the density to be measured and furnishing the comparison beam; the scale of the instrument so adjusted to read

\*Extracted from Communication No. 331 from the Kodak Research Laboratories.

# Construction of a Practical Densitometer

by

Emery Huse, A.S.C.

direct density; and the instrument designed to be portable, compact and inexpensive.

The Eastman densitometer fulfills all of the above mentioned conditions very capably. Figure 14 shows diagrammatically the photometric arrangement of this instrument. It consists of a light source A both for illuminating at H the density to be measured and for furnishing the comparison beam; a photometric field at G obtained by the aid of the mirrors, B, D, F, and G; a photographic wedge W for decreasing by a known amount the intensity of the light illuminating the density; and an eyepiece J for viewing the photometric field.

A general view of the instrument is shown in Figure 15 and working drawings in Figures 16 and 17. The essential parts are mounted on  $\frac{1}{4}$  inch aluminum; this aluminum also acts as a cover for the instrument case. The interior of the box is painted white with the exception of the aluminum cover, which is black. The light source A is a 5 volt, 4 ampere, 32 candle-power, automobile headlight lamp. This type was chosen because it would burn in a horizontal position without the filaments sagging. In order to permit the use of 110 volt, a-c line, a small toy transformer is introduced into the circuit. One beam of light from this lamp passes through the circular silver wedge W (Fig. 14), rotating on the pin P. The photographic wedge is made by copying on a sensitive plate a circular gelatin

Continued on Page 36

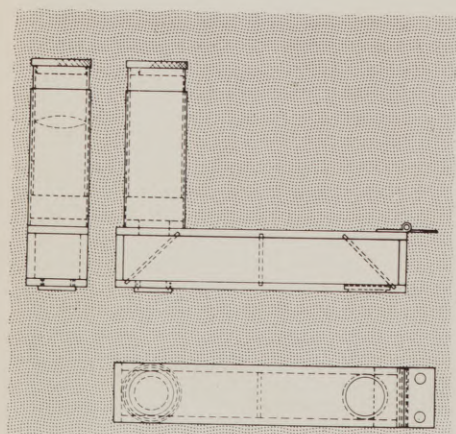


Fig. 16

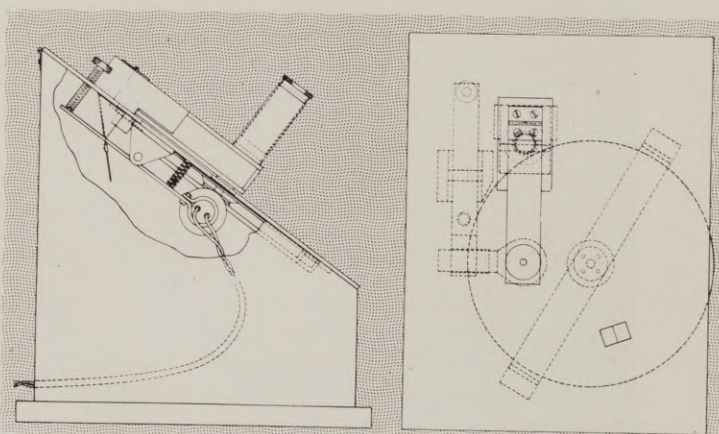


Fig. 17

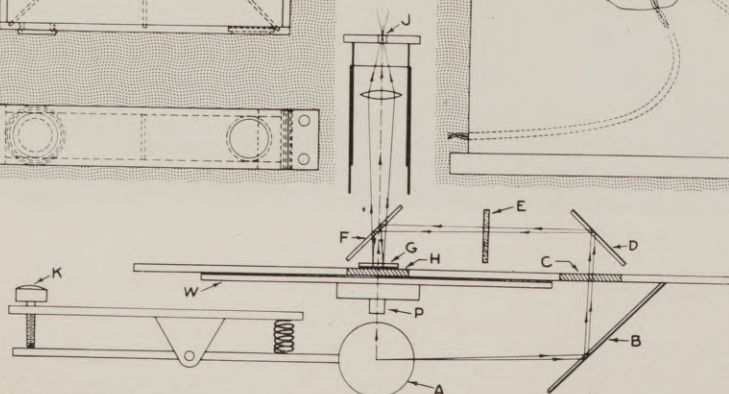


Fig. 14





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# CONSOLIDATED FILM INDUSTRIES, INC.

NEW YORK

HOLLYWOOD







# RIDDLE

## ME THIS

### THE RIDDLE:

On several recent German productions, two cinematographers have been given screen-credit; one for the interiors, and one for the exteriors. Is this, in your opinion, to the best advantage of the production and the cinematographers in question?

**WILLIAM DANIELS, A. S. C.** I do not feel that it is advantageous, either to the production or to the cinematographers concerned. A First Cinematographer, if he is at all worthy of the trust placed in him by the producer who gives him charge of the photography of a production, should be equally capable of photographing indoors or out. Moreover, exterior photography is far easier than is the making of interior scenes. Personally, when I reach the exterior sequences on my own pictures, I feel as though I were having a vacation.

**GEORGE SCHNEIDERMAN, A. S. C.** To my mind, this is added evidence of the degree of specialization being demanded of cinematographers. Theoretically, any man who has attained the standing of a First Cinematographer on a major studio's productions should be, and is, capable of meeting any photographic problems that may arise, whether they arise out of doors or on the studio stage. He should be able to turn out whatever style of photography the picture in hand may require. In practice, however, things are different: Cinematographers are typed quite as much as are actors—and for much the same reason. Experience has shown the producers that certain individuals excel along definite lines; and it is only good business to keep the square pegs in the square holes. There are, for instance, five or six cinematographers, like Dan Clark, A.S.C., Archie Stout, Ted McCord, Joe August, and myself, who have over a period of years proven that they know how to make outdoor pictures in which a

minimum of expenditure will yield a maximum of production value on the screen. Since the producers know that they can rely on the experience of such men 100%, they have accordingly "typed" them as "Western" specialists, despite the fact that these same cameramen have frequently proven themselves equally capable on studio-made, interior pictures. The majority of them have, too, handled retakes and added scenes for pictures made by some of the outstanding interior-lighting specialists like John Seitz, A.S.C., Victor Milner, A.S.C., George Barnes, and others, with such success that not even a trained cinematographer could distinguish which scenes were made by one man or the other.

I can, therefore, though deploring the tendency toward over-specialization among cinematographers, appreciate the producer's viewpoint in assigning one man to handle the interior sequences of a production, and another to handle the exterior ones. He reasons—and not altogether wrongly—that each man, being a specialist in his particular field, will deliver maximum value with the minimum of risk. Neither cinematographer should, therefore, feel that this specialization of assignment is in any way derogatory to his ability or standing. After all, none of us feel ashamed of calling on an Akeley specialist like Elmer Dyer, A.S.C., for assistance in trick or process work. The instance we are discussing, where two men were credited separately for their specialized work on the interior and exterior sequences, is merely a further development of this same trend.

**HAL ROSSEN, A.S.C.** I don't see that there is any reason for such a practice. Any cameraman worthy of the name should be equally at home on the stage and out of doors. In either place, the problem is essentially the same: exposure, lighting and composition. If a man can master these on the stage, he should certainly be able to do so on exteriors, where the problems are so much simpler. It may be argued that the questions of filtering and the



Using booster lights and reflectors on exterior set.



sensitivity of different emulsions to natural light and under different atmospheric conditions, are less familiar to the man whose work is normally done indoors and with artificial light; but with the research facilities of such an organization as the A.S.C. available, and with the co-operation of the laboratory and photographic experts of the principal film manufacturers likewise at his disposal, the cinematographer who fails to keep abreast of every phase of production cinematography, indoors or out, deserves no sympathy. I do not regard the policy of assigning two men for specialized scenes as necessarily either improving or injuring the artistic quality of the picture, however; but if a single mind is directing the photographic treatment of a story throughout the course of production, it stands to reason that the completed film will be a more coherent artistic unity than it could be with several men working out their ideas on it.

**GAETANO GAUDIO, A.S.C.** For myself, I can see no reason for such specialization. If a man is a good enough first cinematographer to be trusted with a production that may cost anywhere between \$200,000 and \$1,000,000, he should certainly know enough to be able to handle a camera quite as well out of doors as indoors. But I realize that there are certain men who have gained a big reputation as out-door specialists — and vice versa. If a producer has an essentially exterior picture scheduled—say a South Sea Island story, where the exteriors must be superlatively beautiful—does he say, "Let's get Tony Gaudio, or Johnny Seitz, or George Barnes?" He does not! He says right away, "We've got to have Clyde de Vinna!" Then, if the same producer has a story like "Mata Hari," or "Grand Hotel" coming up, does he think, "Let's get Clyde de Vinna?" Not a bit—he says, "Get Bill Daniels, or George Barnes, or Tony Gaudio." Yet you could change these assignments around and be equally sure of getting a good picture.

As long as a man knows what effects he can get with his film, filters and lights, it does not matter what kind of a picture he is given. If he is a good cameraman, he will bring back a good picture. Provided, that is, that he has a chance to do good work. You can put the same man in two successive pictures; if one has a schedule of, say, two or three weeks, and the other is allowed two or three months, there's no guessing as to which picture will be good, and which will be bad photographically. It takes time to get the lighting and so on of any shot perfect; if you have to hurry through anyhow, you can't do as well as though you had time to see that every detail was perfect.

That's got a lot to do with interior work—and it has everything in the world to do with the results you get when you go outside. You can't make the weather behave to suit you—you've got to wait till it happens to do what you want. Suppose a producer is sending two companies to Catalina for location work; first he sends me. I have no luck with the weather; maybe it is cloudy all the time when I want sunlight; maybe it is hot and sunny all the time when I want it foggy for rain scenes. Anyway, I don't have time to wait; the picture is already sold, and I must have it in the box by such-and-such a day. Very well; I shoot—and I bring back a picture I am ashamed to show anybody. A week later, the producer sends the other company over to the island. Joe Doakes is shooting it; he has the breaks; the weather is just right, and maybe that picture has a longer schedule, too. Anyhow, he comes back with a beautiful picture. The producer is not a cameraman, so do you blame him when he says, "Joe Doakes is a wonderful cameraman for exteriors—but that Tony Gaudio he is lousy!" Then, when he has a special South Sea picture, which he is going to

---

## THANK YOU!

"RIDDLE ME THIS is a great department. Keep it up," says "Camera."

"That RIDDLE ME THIS department is the talk of the cameramen of Hollywood," says E. I.

"Do not ever leave the RIDDLE ME THIS department out," writes "New York Cameraman."

"Reading RIDDLE ME THIS is like being back with the gang in Hollywood," writes traveling News Cameraman.

"Give us something on sound in RIDDLE ME THIS," says "Decibel."

"Give us more RIDDLE ME THIS," says "subscriber."

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make in Tahiti, with plenty of money and time to spend, who does he think of, Joe Doakes or Tony Gaudio? You bet—Joe Doakes is an exterior specialist from then on!

**JAMES WONG HOWE.** It seems like a good idea to me, providing that both men are equally good in their specialized fields. Some men naturally prefer to work on exteriors; some prefer to work on interiors. Personally, I do not enjoy working outside nearly as much as I do working on the stages. On interiors, you must create something from nothing, using your imagination and your knowledge of composition and lighting as tools. On exteriors, you are circumscribed by the stone wall of reality. You can manage to get a certain amount of the pictorial illusion through careful composition and filtering, but you cannot do nearly as much as you can with your complete control of the lighting on the stage. Having more to work with, and a freer play for your imagination, you are less in danger of getting into an artistic rut, and letting your work become stylized. So personally, I am heartily in favor of such a plan wherever the production in hand warrants it. Of course, it would be foolish to engage another First Cinematographer to do the exteriors alone if there were but a half-dozen or so exterior scenes in the picture; but if a large portion of the picture is played in exteriors, with an equal portion played in interiors, I can see that in many cases the production would benefit enormously, especially if the two men chosen were able to coordinate their work well enough to avoid artistic or technical conflict between their respective contributions. I do not feel that it would injure my standing as a cinematographer to have an artist like Dan Clark or Clyde de Vinna handle the exteriors any more than it does when I delegate aerial sequences to a recognized aerial specialist like Elmer Dyer. If my work on the sequences which I DO handle personally is satisfactory, I am sure that the producers, the directors, the players and my fellow cinematographers will recognize it as such, and not in any way condemn me for being willing to share the responsibility and the credit with a fellow artist who is a recognized specialist in his field.





# WHEELS OF INDUSTRY

● A BIT of information issued by E. Leitz Inc. in their dealers' bulletin for September will prove instructive to the users of the Leica Cameras. While the bulletin goes into great detail as to the object on the film and the object in actual motion, the rule as we interpret from their instructions to obtain maximum speed results is that the shutter should always release in the same direction as the object is moving; that is, if your moving object is coming from the right you will hold your camera in the usual horizontal position; if from the left the camera is turned upside down. For diving pictures the camera would be held vertical so that the shutter releases from top to bottom.

● HOLLYWOOD Motion Picture Equipment Co. in the last month moved in to new and more commodious quarters at 645 N. Martel Ave., Hollywood, Calif.

This move had been contemplated by Art Reeves for several months because of the added space he has found more necessary every day with his increasing business. His new building gives him practically double the facilities of his old location.

● ACCORDING to an announcement emanating from the New York Debie service station, a number of the special cameras made by Andre Debie for the United States Government and used by naval aviators have been sent to the service station for their first examination. These cameras include the famous Ultra Speed "GV" and have been in use by the Government for a period of years.

● VICTOR Animatograph Corporation has taken over the manufacture and sale of the 16 mm. Simplex film cleaner.

Victor is manufacturing only the improved model C which involves three film cleaning processes—immersion in cleaning fluid, passage between saturated stationary pads and light polishing between revolving felt discs.

● FACTORY surveys of the Universal Microphone company indicate ninety percent of microphone repair work can be traced to those curiously inclined who poke an inquiring finger into the open face of the mike.

This firm also announces several new model mikes for public address systems as well as models to be used in connection with talking film, home recording and "baby mikes" to be hooked up with receiving sets.

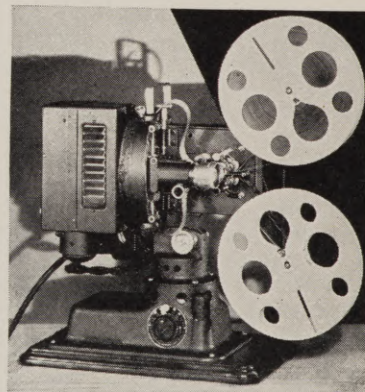
● A NEW 8 mm. camera and projector have just been announced by the Eastman Kodak Co. The camera is the Cine Kodak Eight, Model 60. It is closely similar to the original Cine Kodak Eight, but is fitted with an f:1.9 Kodak Anastigmat lens, which is readily interchangeable with an f:4.5, 1 1/2 inch telephoto lens, which gives a magnification comparable to that of the familiar 3 inch telephoto available for the 16 mm. Cine Kodaks.

The new Kodascope Eight projector, officially termed model 25, takes its place as an intermediate model between the present model 20 and model 60. Its principal features are added screen brilliance, and the ability to operate on either alternating or direct current from 100 to 150 volt lines. These two new instruments definitely round out Eastman's line of eight millimetre apparatus.

● THE HUGO MEYER & Co., Drem Cinemeter which is described by that company as a simpler edition of the Drem Exposure Meter operates similarly to Dremoscop, but is specifically calibrated for all movie cameras. It indicates automatically proper stop to use with corresponding shutter (frames per second) speed, with and without filters. It is the contention of the makers it will be found of great value to the many users of Kodacolor pictures who are now taking advantage of the many colors the autumn produces. The Drem Cinemeter is furnished in a fine sole leather carrying case easily attached to belt, button or camera strap. This firm also has issued a pamphlet of complete instructions for the use of the Leiascop which is a meter for use with the Leica camera.

● THREE NEW projectors for 16 mm. use have been launched on the market by The Victor Animatograph Corporation. They are their model 10 regular which supplants models 3 and 7; their Premier Hi-Power model 10 F-H and Universal Hi-Power model 10 R-H.

The Model 10 Regular is supplied with 400 watt-110, 115 or 120 volt lamp. It may be used with 200 and 300 watt lamps if desired. It includes the Victor 4-point film protection with automatic film trip, the adjustable shuttle, and the built-in automatic 3-way rewind. It is the claim of the manufacturer that this projector is more quiet and smooth running than its predecessors.



As standard equipment with the Premier Hi-Power model 10 F-H a 400 watt-100 volt biplane filament lamp is supplied; however, 200, 300 and 400 watt lamps of line voltage ratings may be used. It is the contention of the Victor Animatograph Corporation that the combining of the 100 volt, 400 watt lamp with their recently perfected optical system makes the projector suitable for long projection throws, large images and daylight projection because of the intense illumination. The lamp is adjustable in five volt steps according to the announcement, for line voltages of from 100 to 120 volts which is said to eliminate the

Continued on Page 38



# THE OLD ERA WENT OUT WHEN THIS FILM CAME IN!

HERE are some of the contributions which Eastman Super-sensitive Panchromatic Negative has made to the motion picture industry: greater artistic opportunities for the cameraman...adaptability to any kind of light...lowered lighting costs on the lot and in the studio...lessened strain for director and actor...greater latitude for the laboratory...better prints for the exhibitor... All along the line there have been changes in procedure and improvement in results. In fact, the old motion picture era definitely went out when this film came in. Eastman Kodak Company. (J. E. Brulatour, Inc., Distributors, New York, Chicago, Hollywood.)

**EASTMAN** **SUPER-SENSITIVE**  
**PANCHROMATIC NEGATIVE (GRAY-BACKED)**





# KEEPING UP with the AMATEUR

## COLOR, STOPS, INTERIORS DISCUSSED

by

**William Stull, A.S.C.**

**D**ECIDEDLY, Autumn is the most colorful season of the year. As the foliage begins to turn from green to shades of gold, crimson and sere brown, all nature seems to be conspiring to persuade us to try a roll or two of Kodacolor. Up to this year, however, as experienced cine workers know to their past sorrow, Kodacolor has been more a medium for closeups and medium shots rather than for landscape work; but with the new Super Sensitive variety lately available, things are as changed as the color of the leaves. So—what can we do about Kodacolor landscapes?

In the first place, let's consider how to get the best results in ordinary black-and-white landscape work. Let's see—Panchromatic film (preferably Super Sensitive) and filters, of course; for regular Pan, the G filter is the best, and for Super Sensitive, the 23-A. Then, lighting: cross-lighting, with nice, long shadows to give relief is by far the most pleasing, although on some occasions back-lighting (with the lens encased in a deep lens-hood) is very effective. Lastly, composition: landscape scenes are vastly better if they are carefully composed, with something in the foreground to lead the eye to the more distant parts of the scene, and weld the whole together into a complete artistic unit. This "something" may be some tree-branches, framing the top or sides of the picture, or it may be merely some rocks, a knoll, a fence, or a road placed so that it helps the eye to travel into the distance.

Essentially, Kodacolor landscapes can be handled in the same way. The only filters possible, of course, are the neutral-density filters; with Super Sensitive Kodacolor, the No. 1 Neutral should almost always be used, for over-exposure washes out the colors. The matter of lighting

is slightly different, for while cross-lights may be used in color work, the best results and the most brilliant colors are had in flat front-lights, with the sun roughly behind the cameraman. Color scenes should be composed much as black-and-white scenes are, but with more attention paid to color: a spot of bright color in the wrong place can divert the attention from the salient features of the scene. The reverse, of course, is also true, a spot of bright color, rightly placed, can focus the attention of the beholder onto whatever feature is desired.

Last of all, whether the picture is in color or in monochrome, it is vital that all panoramic or tilting movements of the camera be made with a definite purpose. Panning just for the purpose of panning is extremely bad. Every pan must be carefully planned beforehand; it is not enough that the panorama begin with an interesting composition: it must also end with one. Moreover, the final composition should be one that is better and more arresting than the initial one. Every movement of the camera should, in short, lead up to a definite climax. Otherwise, it is superfluous, and disturbing to the audience. Above all, such movements should be slow and smooth—or not at all.

This—for no reason at all—leads me to wonder why it is that whenever an amateur sees a particularly well photographed scene, he immediately buttonholes the maker of that scene, and inanely asks, "What stop did you use?" Nine times out of ten, the answer to that question wouldn't help a bit. Even if the questioner did know just what stop the questionee used, he couldn't go out and duplicate the shot merely from that information. The intensity of the light, for instance, changes from minute to minute, and varies greatly with the season; while the exposure would be considerably different according to the type of camera used. If, for example, somebody told me that he had made a certain shot at f:11 with his Cine Kodak, I could not take my Filmo out and duplicate the scene just by following this information. Ignoring for the moment the remote possibility that the light would be the same on the two occasions, the difference between the relatively small shutter-opening of the Cine Kodak and the huge shutter-opening of the Filmo would be enough to give me a badly over-exposed scene. It would be the same no matter what makes of cameras were involved. The only solution of

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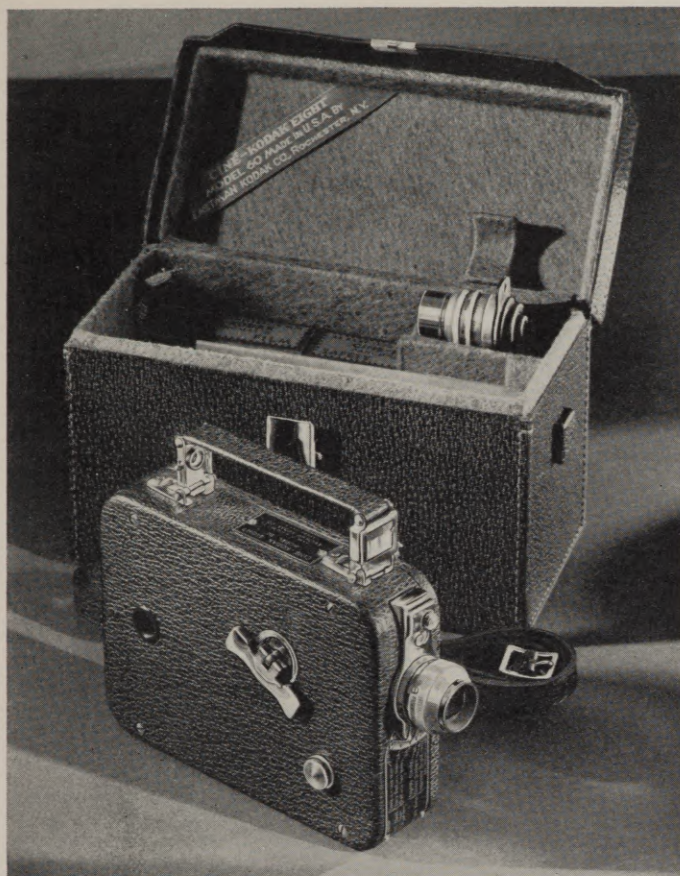


Without Filter



With Filter





# Introducing...

## CINÉ-KODAK EIGHT, MODEL 60

## KODASCOPE EIGHT, MODEL 25

*Another new camera and projector using the new film that cuts movie costs nearly  $\frac{2}{3}$*

**C**INÉ-KODAK EIGHT, Model 60, is equipped with a Kodak Anastigmat  $f.1.9$  lens. This lens is quickly and easily interchangeable with an  $f.4.5$ ,  $1\frac{1}{2}$ -inch telephoto lens, supplied as extra equipment. The  $1\frac{1}{2}$ -inch lens records distant subjects three times as wide and as high as they would be recorded by the regular lens from the same distance. When you open Ciné-Kodak Eight, Model 60, you will be struck by its resemblance to the brightly burnished and highly accurate mechanism of a fine watch. Price \$79.50, including carrying case finished to match the camera in two-toned grey cowhide.

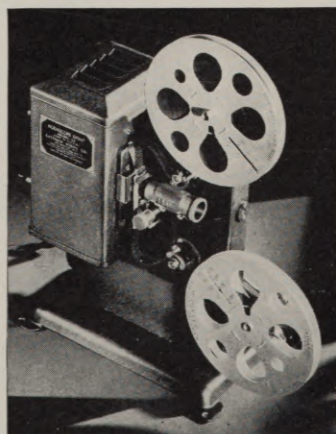
Kodascope Eight, Model 25, couples economical movie projection with added screen brilliance and the ability to operate on either A.C. or D.C. 100 to 150 volt lines. Price \$34.50.

Besides these two new members of the Eight family there are the \$29.50 Ciné-Kodak Eight, Model 20, with its  $f.3.5$  lens—Kodascope

Eight, Model 20, costing but \$22.50—and Kodascope Eight, Model 60, a highly accomplished projector with unusual screen brilliance and many other refinements. Price \$75.

Two cameras—three projectors—all bring you lower cost movie making. For all use the new-principle Ciné-Kodak Eight Film that cuts movie costs  $62\frac{1}{2}\%$ .

See the Eights and the movies they make at your Ciné-Kodak dealer's. Spread the news to your friends who have felt they could not afford fascinating home movies.



*The new Kodascope Eight, Model 25, for 100 to 150 volt A.C. or D.C. lines.*

# EASTMAN KODAK COMPANY, ROCHESTER, N. Y.





"Tell me Bowser, what stop did you use?"  
 "Whadya mean what stop! Didn't I catch the rabbit?"

## Criticising the Amateur Cinematographer

IN REVIEWING these few amateur pictures, let's for the moment get away from the technical avenues. The amateur must be more than a camera man. He must be a producer, a director and an editor. In the parlance of picture titles, "The Amateur in Four Parts."

His eagerness to expose film has cost him considerable money. It is going to continue that way. Many will have to wake up of their own accord. After they get over the "Buttonitus" they will then plan their pictures and become producers. Once they reach that stage there is great hope for them, because the direction will be the natural step and then care in editing and cutting.

However, let's consider a few pictures we recently viewed made by amateurs. They enter three classifications, drama, news and scenic.

The drama and scenic permit of production plans; however, news is where you find it and how you find it.

The bit of drama that was projected for us seemingly lacked rehearsal more than anything else. It lacked what some call the natural type of acting, but which we term the "jitteritus" of the amateur and that is his tendency to work too quickly. He is self-conscious and apparently wants to get away from the telling eye of the lens.

While the brief story was outlined in a satisfactory way, still the amateur did not have his people under control, and by the way, they were all adults. They all indicated a

"feverish" tempo that would have been fine if it were a comedy of the semi-slap-stick variety. It was light in theme, but not a comedy by any stretch of the imagination.

Briefly we would say this picture was somewhat of a replica of many employing the human element and that the players were permitted to go through the scenes too rapidly. Keep your actors down. Don't make them conscious of your direction. You will rid them of this by rehearsals. This picture showed a number of scenes where the player looked the camera in the eye too frequently. Looked to it for direction. Rehearsals and more rehearsals seemingly is the pass word for better dramatic productions.

Among the 16 mm. pictures viewed was an Equestrian Subject. This picture opened with a scene along the road leading to the riding arena. These road scenes seemed irrelevant after reaching the arena with its horses and people. It meant nothing to the picture itself. In view of the fact that the main title of the picture told what was to be expected, a bit of opening production value that would have proved interesting and aroused a few Ahs! from the audience, would have been a close up of a horse's front leg and hoof pawing the ground, seemingly anxious to get started. Then occasionally through the picture flying horses' hoofs in close ups with possibly the finale with horses' feet and a bit more than half of their legs slowly walking off the scene and fading out.

Touches fitted into action pictures like this give it the

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# Forerunners of the Amateur Film

by

**Guido Seeber\***Translated by  
Hatto Tappenbeck, A.S.C.

EDITOR'S NOTE: This interesting article which appeared in a recent issue of "Filmtechnik," the official magazine in Germany of five leading photographic societies, was inspired by the recent development of 8 mm. film. It is the belief of the editor of "Filmtechnik" that the 8 mm. will be the final standard of the amateur and that the 16 mm. will be adopted by industrial concerns, making it semi-professional. This is the first of a series of articles which delves into the history of the narrower width films.

THE AMATEUR film as we know it today has gone through a long history of development. Soon after the 35 mm. or standard film, as we call it today, was recognized, we find inventors busy with the thought of introducing motion pictures to the masses. For a long time they were in doubt and thought it might be better to stay with the standard film; and so they produced in the course of many years a number of very simple and cheap apparatus to make it possible for the amateur to produce motion pictures on standard film. But at the same time we can see efforts being made to popularize cinematography with the use of a narrower film.

If we look at the situation of today we find that it has taken indeed more than thirty years to arrive at a width which spread quickly over the whole world and which seems to be destined in many cases not only to replace the standard film, but also to supersede it.

The reasons for its surprisingly fast spread may be seen in the facts that the largest film manufacturer of the world, the Kodak Co., made the start, that furthermore only unflammable material is used, and that finally the reversal film frees the amateur of all processing and gives excellent results at a comparatively small cost. Today there are more than forty makes of amateur cameras and projectors on the market, which proves again the interest shown in the narrow film and the hopes built on it by the manufacturers. The construction of the cameras makes it possible to obtain results comparable to those on standard film, and the ama-

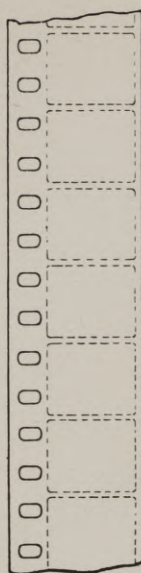


Fig. 1

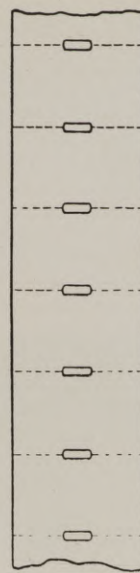


Fig. 4

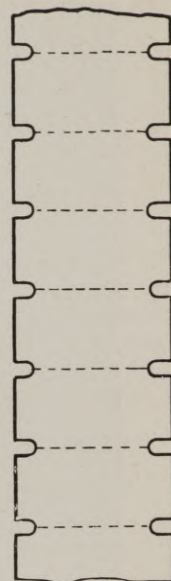


Fig. 6

teur projectors have been gradually perfected to such an extent that we can today project just as bright and large an image with narrow film as we ordinarily see only when using standard film.

Birt Acres of London was the first to introduce the "Narrow film." Birt Acres was the big rival of Lumiere. He photographed the English University boat races, which took place on March 30, 1895, with his "Kinetic"-camera. This was only a few days after the brothers Lumiere had registered their French patent and before they took out their English one. Birt Acres seems to have been defeated at this boat race by the length of a few days only. His English patent is dated about 5 weeks later than that of Lumiere, and he seems already to have given his first public showing in the very beginning of the year 1896.

Birt Acres plays a special part in the history of the cinematography, because he was the first one to use two sprocket wheels in his camera, one to regulate the film before and the other after it was exposed. He did not invent a new narrow film for his purpose, but simply split the 35 mm. standard film in half. Thus he obtained a film strip of 17½ mm. width (Fig. 1) which had the perforations only on one side. As this single perforation proved to be thoroughly practical he constructed an apparatus for photographing and projecting this amateur film.

As Fig. 2 plainly shows, his camera movement consisted of a beater which, according to contemporary reports, produced extremely steady pictures. The apparatus contains

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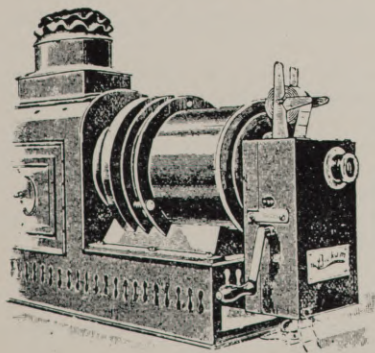


Fig. 5

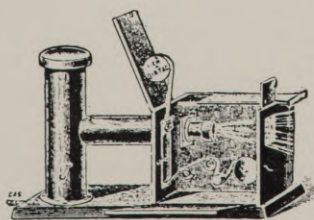


Fig. 3

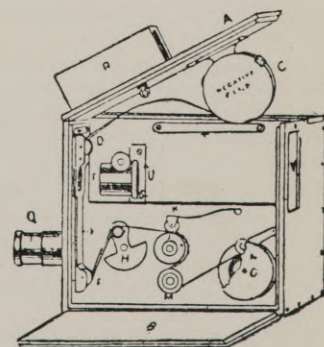


Fig. 2

\*Reprinted from "Filmtechnik," Berlin





## I Waited Ten Days for One Scene

WE HEARD that E.F.G. Chapman had a mighty fine reputation among the amateurs of turning out interesting and well photographed subjects. Any statement of that sort intrigues our "nose for news." We wanted to know Chapman, but right then he was in Honolulu. We knew he had to come back, so we waited patiently, patiently.

Our patience, we realized, however, was nothing compared to Chapman's after we chatted with him five minutes and had him tell us some of his experiences in picture making. The statement that not only intrigued us, but we might say flabbergasted and consternated our equilibrium was when he said "I waited ten days to take one scene."

Chapman does not confine his efforts seemingly to any one type of production. He uses the human element a great deal to add that punch and that interest that every movie maker whether amateur or professional wants to get in his production.

"I find," said Chapman, "that people are not always in the same mood every day, they are not in the mood that

activated a certain piece of business the day before. Possibly I myself have mixed my chemistry up a bit in the past twenty-four hours and I am not seeing things today eye to eye with my viewpoint of yesterday. When such a situation faces me I leave my cameras wrapped up in the moth balls. One scene eluded me in that way for ten days. Either my cast wasn't right, I was off a bit or the weather would not permit, so I waited, waited for ten whole long days. But it was worth the wait although the scene to be taken was very short. When I did get it, it was what I wanted."

Of course, everyone cannot be a Chapman, everyone cannot be a second job for patience. Some might point to him as an extreme case. Might think he is taking it too seriously. But then, why not? He likes photography. He likes to project good pictures on his screen. He wants to make them just as good as his ability will permit. His ability is pitted against many other things. The outside influences, the human element over which he has no control.

In the professional studios, where the player is receiving a high salary he simply must be in the mood. If the light isn't right, they have the artificial light always to fall back on. The amateur cannot go toward this without building a studio of his own that involves too many thousands of dollars. So his only other recourse is patience. Wait for the scene, it will come. To mention the old bromide, do not rush to the mountain, make it come to you.

Some amateurs have not given this angle a thought. Moods are important, your own as well as the moods of the people around you. You wonder why the scenes taken one day are better than those taken another. Let's put them down to moods, or to use a professional term, tempera-

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# AMATEUR FILM CONTEST

## JUDGES NAMED

JUDGES FOR THE AMERICAN CINEMATOGRAPHER'S \$2,000 Amateur Film Contest have been selected. They include the outstanding Cinematographers of the Industry, and a group of the best-known Directors, Actors, Actresses, Writers, Film-Editors, Producers and Motion Picture Critics in the world. This committee will pass final judgment upon the films entered in the contest.

The members of the Judging Committee include:

**CECIL B. DE MILLE**, Director of "Ten Commandments," "The Volga Boatman," "The King of Kings," "The Sign of the Cross."

**NORMAN TAUROG**, Winner of the 1931 Academy Award for Direction, Director of "Skippy."

**CLARENCE BROWN**, Director of "Anna Christie" and many of Greta Garbo's greatest silent and talking successes.

**CLARK GABLE**, star of "Red Dust," "Hell Divers," "No Man of Her Own," "Susan Lennox," and many other films.

**LESLIE HOWARD**, one of the most distinguished stars of stage and screen, lately seen in "Outward Bound," "Never the Twain Shall Meet," "Five and Ten," "Devotion," "Smilin' Through," "The Animal Kingdom," and an enthusiastic Cine Kodak user.

**CONRAD NAGEL**, star of "Glorious Betsy," "Hell Divers," "Divorce in the Family," "The Man Called Back," "Let's Go," and for many years a maker of personal movies.

**JOAN CRAWFORD**, star of "Rain," "Grand Hotel," "Letty Lynton," and many of the most popular films of the last few years.

**HELEN HAYES**, nominated for the 1932 Academy Award for the Best Performance by an actress, star of "The Sin of Madelon Claudet," "Arrowsmith," "Farewell to Arms," and "The Son-Daughter."

**IRENE DUNNE**, star of "Cimarron," "Back Street," and many other hits of the past few years.

**BLANCHE SEWELL**, who edited "Grand Hotel" and many of Metro-Goldwyn-Mayer's greatest productions.

**BARNEY WOLF**, head of the Film Editing Department of the Fox Studio.

**MAURICE PIVAR**, Head of the Film Editing Department at the Universal Studio.

**LOUELLA O. PARSONS**, Motion Picture Editor of the Hearst Newspapers.

**EDWIN SCHALLERT**, Motion Picture Editor of the Los Angeles "Times."

**HARRISON CARROLL**, Motion Picture Editor of the Los Angeles "Herald-Express."

A group of three of the best-known authors and screen-writers, whose names will be announced later.

The Production Heads of the Major Studios of Hollywood. The Cinematographers' Group includes:

**JOHN ARNOLD, A.S.C.**, Who photographed such pictures as "The Big Parade," "The Broadway Melody" and "The Hollywood Revue," and is now head of the Camera Department of the Metro-Goldwyn-Mayer Studio.

**ARTHUR MILLER, A.S.C.**, First Vice President of the A.S.C., who recently completed the photography of "O. K. America" and "Pier Thirteen."

**FRANK B. GOOD, A.S.C.**, Second Vice-President of the A.S.C., one of the Industry's outstanding authorities on Color Cinematography.

**ELMER G. DYER, A.S.C.**, Third Vice-President of the A.S.C., the World's foremost Aerial Cinematographer, whose work in making the aerial sequences of every big flying picture made during the last fifteen years is too lengthy to mention here.

**GEORGE SCHNEIDERMAN, A.S.C.**, Treasurer of the A.S.C., photographer of "The Iron Horse," "Young America," "Golden West," and other films.

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## Color, Stops, Interiors Discussed

Continued from Page 24

the problem would be to go out with an accurate exposure-meter, and add to its readings my own experience in photography and with my own camera.

Another thought as Autumn draws on: interior photography. In the past, interiors meant a lot of equipment and expense; but now, with Super Sensitive film, fast lenses, and the new Photoflood bulbs, interiors are easy and inexpensive. Every light-socket, every floor and table fixture, is a potential photographic lighting unit. So—why not have a try at some interiors this season? If you are one of these mechanically-inclined people who get as much pleasure from making little gadgets as you do from using them, there are several easily-made accessories which are at the same time extremely useful for interior cinematography.

The first of these is a junction-box for your lights. This is merely a cable with a gang of outlets at one end; with it, you can have the controls of your lighting right at your finger-tips, no matter where you may have to scatter the actual lighting units. The construction of this junction-box depends in a great measure upon the type and number of the lighting units used. If they are the conventional photographic lights, using 500-Watt bulbs, the electrical load will be quite heavy, necessitating a rather substantial circuit to carry the load safely. If, on the other hand, the new Photoflood bulbs, which consume only a very small amount of current, are used, the junction-box may be made much lighter, and will also carry far more units safely. In this case, in fact, the small, light junction-boxes commercially made to permit the use of several toasters, percolators, etc. at the breakfast-table, will serve, since the load is not too severe to overload the light wiring of these devices. However, such commercial products are not as a rule sufficiently durable to withstand the hard knocks of amateur studio use, nor are they fitted with sufficient cable to be truly satisfactory. Therefore, since the expense is slight, it is much better to build your own. All that is necessary is a metal junction-box, a cover, and the required number of parallel-wired gang outlets. All of these may be obtained from any electrical-supply house, and in any size that may be necessary to handle the electrical load imposed by the lights used. Such a junction-box should be fitted with at least twenty feet of cable, preferably the rubber-insulated variety known as Tirez, with, of course, a connection which may be plugged into the house-circuit outlets.

Before using such a device with the more powerful lights

(250-watts or larger), it is important to know how your house is fused and wired, for if you put a load of, say, 2500 watts on a circuit that will only carry perhaps half that load, something is bound to happen. At the least, you will blow out some fuses; at most—for instance if you have used fuses with a capacity greater than that of the rest of the circuit—you may so overheat the house-wiring as to set fire to the house. So—take that stitch in time!

Another useful accessory is a "nigger"—no, Elmer, not a gentleman of color: a flat sheet of wallboard, two or three feet wide by five feet high, fixed in a light wooden frame so that it can be stood on end, and painted a flat matte black. This "nigger" (it is also called a "gobo" in some studios) is very useful in screening the direct rays of the back-lights from the camera lens. Two or three "gobos" of different sizes are vital to the efficient making of well lit interior scenes.

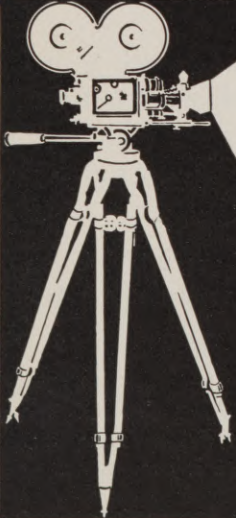
Yet another easily-made and highly important accessory for interior photography is a diffuser. This is simply a sheet of muslin or tracing-cloth mounted in a frame of wood or heavy wire, so that it can be easily hooked over the different lighting units. The diffuser softens the light, and makes the photographic result far more pleasing. Of course, it does cut down the intensity of the illumination in this softening process—but the result is worth the slight loss in this respect, which is more than counterbalanced, anyway, by the fast films and lenses now available, and by the increased power of the lights. If you want artistic, natural lighting-effects, by all means use diffusers. In some cases, two or more diffusers may be used on a single light; I have seen professional cameramen using as many as six diffusers on a single unit, in order to get a certain overall level of illumination without having to use harsh, undiffused lights to secure the high-lights. At any rate—try using diffusers on your lights, and see how the quality of your photography is improved!

## Criticising the Amateur

Continued from Page 26

finishing touch that practically every amateur is striving to attain.

The proper stops and proper filters to use under various conditions is going to be a matter of trial and error with every one using a movie camera. They have to tackle this in the same way they would have to learn the playing of a piano. The beginner plays it mechanically. The amateur cinematographer is going to do likewise. With more practice



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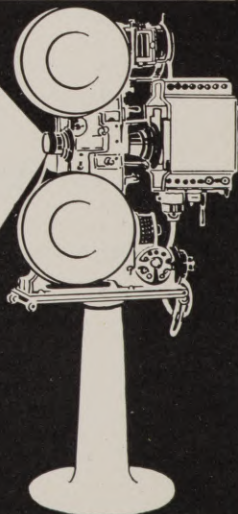
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he is going to get the "feel" of photography the same as a beginner finally gets the feel of music. It is practice, painstaking notations of what was done and how it was done under the circumstances.

Where the ingenuity and imagination is going to have free rein, and where he is going to get his greatest kick is in the production, direction and editing of what he has taken.

Among the pictures we saw in this amateur group was one of the finest pieces of photography we have witnessed in a mighty long time. It would have made some of the professionals envious. The criticism of a few of those assembled on the subject matter was that human interest was lacking. Nothing but scenery, waterfalls, flowing rivers were shown. To us it was beautiful without human interest. It was interesting. To have injected a human being in that subject would have taken a great deal away from our imagination. We were lost in the fine scenery. We might not have objected to a dog, or some other animal that we might find out in the open. Possibly a squirrel would have been more to our liking, providing, of course, the maker of this picture had a squirrel, to cut in occasionally to give the impression that this is the beautiful scene the squirrel sees. It would have had to be close ups of whatever animal was used, not in action, but serenely looking in the direction of the next scene. In other words, the picture of his animal should always have been taken from the rear. This might have added a touch, but as we hark back in our memory we should sooner have seen the picture just as it was than to have had something foreign to the subject injected.

To have people in the fore-ground when shooting beautiful scenery to us has always been distracting. Your attention focuses on those people. You have a nice setting for the human being, but the viewer usually loses the scene in its fine details. Using people, children especially in the background, in fact so far back that you do not distinguish their features, but just realize they are there, with a minimum amount of action, might possibly add to a scene of this kind, but it takes delicate handling.

This picture also had a beautiful bit of "panning," slowly, mighty slowly, at a snail's pace at times almost imperceptible. But still we agree with the professional advice, not to "pan". This picture was followed by another picture where the "panning" made our eyes almost jump out of their sockets. No attention was given to the line of movement. The operator "panned" against the action. No need to mention the results.

Whereas the other "panned" so that at the end of the "pan" there was a surprise picture. Something to admire. And still we say do not "pan." Practice on short ends, if you must "pan," but slowly, mighty slowly. But do not "pan" in your pictures.

### I Waited Ten Days for a Scene

Continued from Page 28

ment. You'll find more of it among the amateurs than with the professional. They are not paid. They want to do it as they think it should be done regardless of its relation to the rest of the story.

So patience and patience in large measures is necessary to get production value.

And patience will show its values. Let's go back again with Chapman.

He was up in Yellowstone park with a still camera. Those designs some of the geysers made caught his photographic eye. He wanted one of those designs. It meant fast shooting, right on the instant to secure a picture. A picture of some odd formation. Chapman exposed twenty-four plates

and the last plate shows a dog with a hat perched on the side of his head. It took twenty-four plates and we do not know how many hours to secure the results he wanted.

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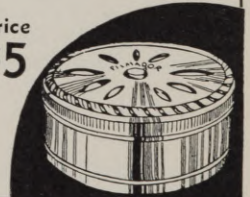
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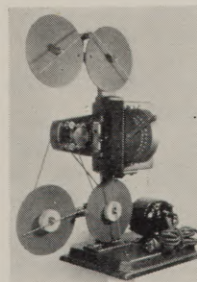
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"When I go on a vacation," continued Chapman, "I am inclined to stay in one place when I am out for pictures. I find the longer I stay the more fine settings I will find all around me. When a person first arrives at his chosen site, he, of course, is impressed with the outstanding scenic phenomena that surrounds him and overlooks those many other things that contribute to the big view. The longer I stay in a scenic spot, the more of these small and overlooked views are discovered by me. They add immensely to the value of the whole picture. Cutting them in here and there they add contrast and they make for completeness."

"I spent three months in Honolulu instead of the usual two weeks to get one picture. That three months of planned and concentrated shooting was worth a year of miscellaneous exposures to me in the results I obtained. Whether they were good or bad in the judgment of others I do not know—they satisfied me."

This might seem like stretching a hobby rather far, but still a hobby is only worth the satisfied results it gives you, not the action and effort you put into it. Scattered forces, random shots and haphazard planning brings just that sort of results; a lot of film you do not know what to do with, just a bit of exercise for your trigger finger and hopes that are shattered right after the developing of the picture.

### Forerunners of the Amateur Film

Continued from Page 27

a Zeiss-projection lens on the inside which is used in event one wants to project with the camera itself. Fig. 3 shows the arrangement of the apparatus for projection purposes. We want to mention here that in the beginning nearly all motion picture apparatus were built in such a way as to enable the owner to photograph, print, and project with it. It took a comparatively long time before anyone started to build special apparatus for each purpose, though it is easily understood, that such creations which are made to serve several purposes at the same time are never very efficient.

The first amateur film with a perforation in the center—also 17½ mm. in width—(see Fig. 4) was brought out by the firm of Wrench & Son in London to be used in connection with their "Biokam." The dimensions of this small camera were 9½x5½x3½ inches, and its price was \$33. The "Biokam" was also made to photograph, print, and project (Fig. 5). We want to mention that in those days the same apparatus was used to make enlargements on bromide paper. The lenses for this "Biokam" came from the factory of Voigtlander & Son in Braunschweig, Germany. The camera lens, a rapid rectilinear lens F:7.7 and 34 mm. focal length was constructed by Dr. Kampfer. The same type of lens with an opening of F:2.5 was used for projection. A small piece of the film protruded from the magazine. It had a groundglass surface to facilitate the focusing. Fig. 5 shows plainly how in

those days the apparatus was used for projection purposes in connection with the auxiliary lamphouses then on the market.

Of similar construction was the miniature cinematographic camera made by Hughes in London. The center perforation of this 17½ mm. wide film did not have the shape of a slot like the "Biokam"-film, but was square. This arrangement was made to stop the frames more surely. The camera was built for photographing, as well as printing and projecting. In order to take the film up properly it had a takeup magazine fastened onto it on the outside.

Reulos, Goudeau & Co. of Paris, in the year 1900, put an amateur apparatus on the market. It was called "Mirograph." The film for it had a width of 21 mm. and no perforations. Instead it was cut out on the edges as shown in Fig. 6. Seen from the outside it looked like the first ones made by Gaumont and Appleton. The apparatus cost \$50 and the projection lamphouse \$16 extra. In those days gaslight was used for projection, and with it the "Mirograph" would produce pictures of at least 3 feet wide. With arc-light, pictures of about 12 feet in width could be obtained. The same firm also manufactured a viewing apparatus called "Mirooskop." The firm of L. Gaumont & Co., of Paris, which is known all over the world, could not disregard the amateur film situation and put its "Pocket-Chrono" on the market. The film had a width of 15 mm. and was perforated in the center. Its movement consisted of the beater designed by Demyen whose patents were exploited by Gaumont.

### New Method Revives Interest in Disc Recording

Continued from Page 8

acteristics of the reproducers. The surface noise arises from a random distribution of impulsive shocks caused by small irregularities in the surface of the record. These produce noise of their own which is the surface noise proper but in addition they start resonant vibrations in the reproducer that have resonant frequencies within the range of reproduction. In the new vertical type reproducer all such resonances have been successfully eliminated by careful design. As a result surface noise, as shown in Figure 2 slowly increases with frequency without showing any peaks which would exist if there were resonating parts on the reproducer.

"Further studies of vertical recording naturally brought into consideration the plating operation. The usual methods of graphiting or brushing the wax with electrically conducting powders have been found to be unsatisfactory and the cause of a considerable amount of noise in the finished record. The most satisfactory method has been found to be one of the earlier methods used in the phonograph field, namely, cathode sputtering of the wax. With this technique, however, heat is developed and it has been found necessary to keep the wax cool during the sputtering operations. This difficulty has been taken care of by the use of a very thin layer of wax flowed on a metal surface which can be kept from becoming sufficiently warm during the sputtering operation to cause damage to the recently cut wax. By using a thinly flowed wax it is possible to obtain a surface texture which is extremely smooth and homogeneous and which is free from the mechanical strains incident to shaving the waxes by the methods now commonly in use. This thin layer of wax is sputtered with an extremely uniform, smooth and tenacious surface of metal within a very few minutes. The sputtered wax may then be inserted in the plating tank and the usual plating operations followed.

"It has been common practice to provide duplicate stampers by electro-plating the first stamper or master to



obtain a negative metal record. This master in turn has been plated to provide a duplicate stamper. A convenient and quick alternative method has been provided by sputtering and plating a suitable pressing made directly from the original master. All of these improvements tend to decrease surface noise, the reduction being of the order of 25 to 35 db. The volume or dynamic range of recorded sound is usually considered to be the difference in decibels between the loudness of the surface noise and the loudness of the maximum recorded sound which the record can accommodate with faithful reproduction. With lateral records of the past this volume range has been stated as about 25 to 30 db. With vertical recording the reductions in surface noise described above increase the volume range to from 50 to 65 db.

"By a combination of the various steps mentioned above, it has been found possible to record fifteen minutes on a 12-in. record and ten minutes on a 10-in. record. This involves the use of about 200 grooves per inch and a recording level about equal to the recording level employed in lateral recording when 100 grooves per inch are used. Under these conditions the new technique, because of this greatly increased signal to noise ratio, gives records which for many recorded subjects are actually noiseless. The tonal quality obtainable is well comparable with the best film recording, while the volume-range possible considerably exceeds anything at present obtainable on film. A number of technical and commercial advantages in comparison with existing disc processes are likewise evident. Over-cutting and breakage of grooves are virtually impossible with vertical-cut records, while the cellulose-acetate base is practically impervious to breakage, heat, or water.

"While it is too early to predict just what uses will be made of this method of recording in the motion picture industry, it is felt that the method holds great promise and as further experience is gained several uses will be found for this method. At present it is being used to a large extent in recording electrical transcriptions for the broadcasting stations. Some consideration has been given to using this method as a library of sound effects and music which can be used in re-recording. Experiments to date indicate that re-recording from the vertical cut record to the film can be accomplished very successfully and without the usual losses which occur when re-recording is done from film to film. It is expected the ingenuity of the personnel in the motion picture industry will devise profitable uses for this interesting recording method."



### Why I Choose Cinematographers as Directors

Continued from Page 11

While he, as a cinematographer, is attending to his camera, the director is dealing with the dramatic.

If the cinematographer does not know what the director is doing, if he is unable to comprehend the dramatic highlights of a motion picture, he will never become a director. This statement has been proved amply in the industry again and again. Cinematographers elevated to the rank of directors have turned in, time and time again, photographically perfect pictures which slide and gloss over the dramatic moments and leave the audience absolutely cold. I know of one case recently where a cinematographer-director in a major studio was given an excellent cast and a fine story and proceeded to turn out an absolutely flat motion picture. It was necessary to assign another director and re-take every dramatic scene in the picture.

My interest, of course, in promoting cinematographers to be directors is a more or less selfish one. I know that when a skilled camera man is given a directorship, so to speak, he will cooperate with the man at the camera and will understand his problems far better than a director who has risen to a directorship through other channels. I know that I will get a picture which will be pictorially perfect.

I know, too, that every player in the cast will be given a photographic "break" and that every favorable feature of that player will register on the screen at the preview. I know, too, that every background will be given a full play and that none of the production value will be lost through faulty camera work.

The only thing which worries me is whether the cinematographer—better, the ex-cinematographer—will exercise the creative ability which he must have to become successful and to make the company, in turn, successful. This rests entirely with the individual.

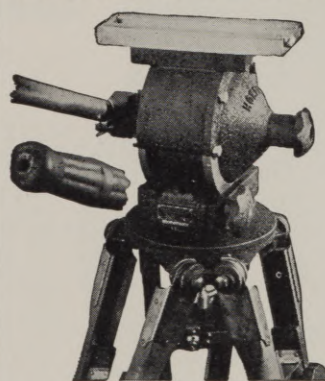
In closing I wish to call the attention of every cinematographer to the fact that he is "on the spot." He is in a position to advance himself.

He has the shortest distance to go of any man in the industry. If he will give his attention to turning out good work as a cinematographer and at the same time look ahead of him and study the work of the director and of everyone else on the set, he will be fitted for the new job which, in time, is bound to come to him.

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**Construction of a Practical Densitometer**

Continued from Page 18

wedge (see Fig. 18). To facilitate turning, the wedge projects  $\frac{1}{8}$  inch from under the instrument cover.

The beam of light after passing through the wedge falls upon the opal glass H. The photographic image to be measured is laid on this diffusing screen. The opal glass also acts as an illuminator for the detection of the spot to be measured.

A second beam of light coming from the lamp is led around by the two mirrors, B and D, to the photometric head. This head consists of a plane glass F set at an angle of 45 degrees, so arranged that the light from the mirror system is reflected to the base of the head. The two surfaces of the plane glass reflect sufficient light (about 10 percent) to furnish the comparison beam. In order to insure a uniform patch of light, a piece of opal glass C is placed between the mirror B and D, and a piece of ground glass E between D and F. In the base is a circular piece of plane silver mirror G with its silver side nearest the opal glass H. In the center of the mirror the silver is removed over an area of  $\frac{1}{2}$  mm. in diameter.

The observer sees in the eyepiece J a spot illuminated by the opal H, surrounded by a comparison field illuminated from the mirrors B, D, and F. The eyepiece contains a suitable magnifier.

In order to make the dividing line in the photometric field become entirely invisible when the two parts of the field are balanced, the mirror G is thinly silvered and thinly varnished. The silver is removed from the center of the

mirror by covering the silver side with a template having a hole of the desired area ( $\frac{1}{2}$  sq. mm.) and scratching away the silver with a brass needle. The silver surface is protected from the atmosphere and from scratching by cementing with Canada Balsam a micro-cover glass onto the mirror. In order to prevent scattered light from entering the photometric field when a small dense spot is surrounded by a large light area, and also to act as a bumper, a thin sheet of dull black paper is pasted over the cover glass.

In the center of the black paper a hole is cut slightly larger than the hole in the silver surface of the mirror. As the density to be measured is never in perfect optical contact with the mirror, the size of this hole is a factor in determining the minimum size of the spot which can be measured.

The instrument was calibrated by carefully measuring on the Capstaff-Green densitometer the densities of a series of neutral gray gelatin films. After finding with each of these densities the position of the wedge which enables the field to be balanced, the values were marked on the wedge itself, a suitable window being provided on the top of the instrument case.

The measured films increased in density by 0.1; the intermediate graduation divisions were interpolated. As the wedge throughout the greater part of its length increased uniformly in density, the graduation divisions were consequently uniform over this range. The need for extreme care in the calibration of the wedge should be emphasized, as it is essentially the element upon which the precision of the instrument depends.

To make measurements: the photometric balance is first

**7 Interchangeable Lenses**

(Left) **GLENN R. KERSHNER**, Cinematographer with the Macmillan and other Expeditions, who uses the LEICA for "stills" in his moving picture work, says: "The LEICA will give you pictures at all kinds of speeds from time exposures to five-hundredths of a second with the assurance that one will never spoil a prize shot by a double exposure for it can't be done."

(Center) **JACKSON ROSE**, Universal Pictures cinematographer says: "I had a difficult time convincing photographic experts that these remarkably brilliant prints (11 x 14 inches) were enlarged from Leica negatives. It was not until I displayed the 1 by  $\frac{1}{2}$  inch originals they were convinced."

(Right) "**CANDID**" CAMERA SHOT of William Seiter, director, and Arthur Miller, camera man, made by C. W. Slifer. LEICA'S small size and the ease with which it can be concealed, makes it ideal for getting unposed pictures.

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The revolutionary new LEICA built-in range finder, coupled with lens mount for automatic focusing, enables you to see your picture in exact focus right up to the moment of exposure. No guesswork and no lost time, so that you can catch even the speediest subjects in sharp focus.

Takes up to 36 pictures on a single inexpensive roll of cinema film. Needle sharp negatives that enlarge beautifully up to 12 x 18 inches.

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adjusted at the zero position by slightly moving the lamp to or fro by means of the thumb screw K. After once determining the zero position, it is only rarely that the lamp distance needs to be altered. The density to be measured is then placed in contact with the opal, and the photometric balance is reestablished by rotating the wedge.

The performance of the instrument was tested by measuring a number of uniform densities separately and then in pairs. It was found that the superimposed pairs agree within 0.02 of the arithmetical sum of the single densities. Similar agreement was found when three pairs of densities were superimposed. A further test was made by exposing a photographic plate under these neutral dye densities and giving exposures through the various pieces as indicated by the measured values, so that the developed plate would have a uniform density if the measurements were correct. Several trials were made, and in each case it was found that the measured density corresponded to within 0.02 of the printing density.



#### Industry Endorses A.S.C. Proposed Testing Plan

Continued from Page 5

fidence in the equipment he uses. We shall be glad to cooperate in any way possible."

As an indication of the reaction of the amateur movie maker to this plan, the opinion of Glenn Steel Bowstead, president of the Chicago Cinema Club incorporates the viewpoint of the many amateurs who have enthusiastically responded to this move of the American Society of Cinematographers. "I was very much pleased to read in the October issue of the American Cinematographer," said Mr. Bowstead, "that the future policy of that publication will incorporate a much larger space devoted to the amateur movie activities. I was also very much taken with the first article wherein the future policy of the Cinematographer Association is to include testing of apparatus appertaining to amateur movie work. I cannot help but feel that this will be a big step forward in assisting amateurs in analyzing the claims made by manufacturers and dealers which they would not otherwise be in a position to do."

A great interest was evinced among the dealers who are anxious to have the benefits the approvals will mean to them in the sale of their product.

Having as its aim the constructive advancement of cinematography and allied technical activities as outlined on page 5 of this issue, the American Society of Cinematographers enters this plan of testing after much deliberation so that it might render the full service that is expected of it.



#### Bell & Howell's Publication, Filmo Topics, Out

**A**NNOUNCEMENT of the contents of Bell & Howell's publication *Filmo Topics* for October and November would indicate a very interesting issue of this publication.

Included in the contents are such feature articles as: "Behind the Mirror," a successful birthday party film inspired by "Alice in Wonderland," authored by Harvey F. Morris; "Exploring the Western Arctic" by Richard Finnie, is an account of the author's one-man expedition for the Canadian Government. "Let's Edit Those Summer Films"

submits some ideas on how random shots can be made into interesting movies, and an explanation of the mechanics of film editing. This edition also has its feature "Filmo News Pictorial," also "Among Eclipse Recorders," as well as a comprehensive article on the 16 mm. in industry as employed by the Caterpillar Tractor Co. Of interest to a great many will be suggestions under the self explanatory heading "Movie Makers' Christmas Cards." Then, of course, the ever interesting Questions and Answers.

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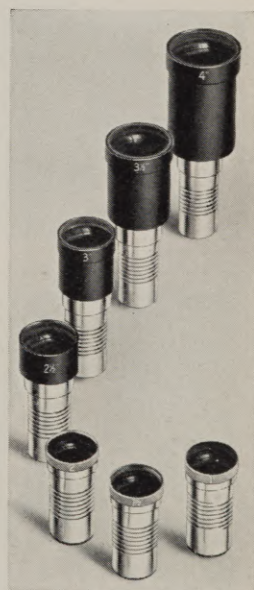
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At the Paramount studios a study of the expansion of electricity into almost every phase of film work is easily made under the expert tutelage of Earl O. Miller, chief electrician.

"Night After Night," featuring George Raft, Constance Cummings, Wynne Gibson, Mae West and Alison Skipworth, furnishes an excellent example to chart the study of the electrifying of film processes.

The mill, where sets are made, is electrically operated throughout. An electrically-powered machine shop makes metal fixtures. A small electric truck carries loads of big lights for illumination while an electric hoist takes some to platforms above the set.

Even the players do not escape the touch of electricity.

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Waves and curls are placed in actresses' hair by electric curling irons. Electric sewing machines in the wardrobe department make their costumes and electric irons keep them pressed.

Electricity lights the huge set at the touch of a single switch. Two-ton stage doors slide into place by electricity. Camera motors and the machinery of the sound recording rooms are operated and synchronized electrically.

In the laboratory, the negative and positive prints are developed, dried and polished by electricity.

In the cutting rooms, the numerous individual pieces of film become one on an electric splicing machine. The editor watches and listens to the film on an electric Movie-ola, a miniature exhibition machine.

And, finally, in the theatre, the film is run on electrically-operated projection machines and the sound reproduced through electric amplifiers.



### Wheels of Industry

Continued from Page 22

hazard of overloading. This model also embraces a new rack-and-pinion tilting device and an automatic pilot which turns when the projection lamp is extinguished.

The Victor Universal Hi-Power Model 10RH is identical to the Premier Hi-Power except for the lamp resistance. The built-in universal resistance of the 10RH is of the variable rheostat type and is equipped with separate motor for forced cooling and with ammeter and variable resistance control.

This equipment accommodates all of the regular and high intensity lamps up to 7 amperes rating. For maximum illumination, the powerful 165 watt-30 volt lamp is supplied by Victor as standard but the user may substitute the hundred volt 400 watt, 375 watt-75 volt or any of the lamps of line voltage ratings if he so desires. The advantage of the 165 watt-30 volt lamp is its low cost compared to the prices of other high intensity lamps.



### Nominees for Academy Camera Awards

Included in the nominations of the Academy of Motion Picture Arts and Sciences for distinguished achievements in cinematography in their fifth annual awards which will be voted upon this month are Karl Struss, A.S.C., Ray June, A.S.C. and Lee Garmes.

Recognized as one of the industry's leading cameraman, and especially noted for his artistry with the new "low lighting" method of photography Lee Garmes was chosen as one of the nominations for an Academy award this year. Garmes has been devoted to photography since he was a mere boy. He was a cameraman's helper at the age of thirteen. Before that time he had been experimenting and studying photography with a small box camera, shooting the pictures and afterwards developing and making his prints himself.

He photographed two reel comedies and later graduated to features with the filming of "The Grand Duchess and the Waiter." This work won him an assignment to accompany Rex Ingram to France to photograph the "Garden of Allah." Garmes has been responsible for the camera work on many of Hollywood's most interesting pictures, among them being "Morocco," "An American Tragedy," "City Streets," "Dishonored," "Fighting Caravans," "Whoopie," and "Lilies of the Field."

Coming through with a second signal recognition of the so-called school of realistic photography, Karl Struss, A. S. C., again won nomination for his outstanding cinematography, this year for his work behind the camera on "Dr Jekyll and Mr. Hyde." The first Academy recognition of his craftsmanship was for the photography, in asso-



ciation with Charles Rosher, on the F. W. Murnau production of "Sunrise," in 1927-28.

Struss is not only recognized as one of the industry's leading cinematographers, but is also an expert in the field of "still" photography, having had his camera studies exhibited all over the world and winning many awards and honors for their excellence.

He has been studying photography all of his life and has been peculiarly successful in obtaining a beauty and realism which is attained by few cinematographers.

In addition to "Dr. Jekyll and Mr. Hyde," Struss has photographed "Skippy," "Murder by the Clock," "Abraham Lincoln," "Kiki," "Two Kinds of Women," and has just completed the DeMille production of "Sign of the Cross."

Ray June, A.S.C., chief cameraman on the Samuel Goldwyn production, "Arrowsmith," one of the pictures nominated to the Academy's awards for the best picture of 1931-32, is himself an awards nominee because fellow cinematographers selected his work on "Arrowsmith" as worthy of going on the ballot for the award for best cinematography.

Born in Ithica, New York, June attended Cornell University, served as a photographer for the U. S. Signal Corps during the World War and for a time was instructor in motion picture photography at Columbia University. He then entered the motion picture production industry. During the past two years he has filmed nine pictures. His most successful work has been on "Alibi," "Putting on the Ritz," "Reaching for the Moon" and "Arrowsmith."

### Robert B. Kurrle Mourned

THE MOTION PICTURE Industry lost one of its greatest cinematographers and finest gentlemen in the death of Robert B. Kurrle, who died at the Cedars of Lebanon Hospital in Hollywood, October twenty-seventh.

Mr. Kurrle had been an outstanding cinematographic artist for the past seventeen years, having photographed many noteworthy productions, including the Rockett Bros.' "Abraham Lincoln," Edwin Carewe's "Ramona," "Evangeline," "Resurrection" (both silent and sound versions) and, during the past two years, a number of equally notable productions for Warner Bros.-First National.

He was one of the earliest members of the American Society of Cinematographers, and one of the best-liked members of the camera profession. His passing leaves a place in the industry and in the hearts of his fellow-workers which can never be filled.

### "Window Wall" New Invention In Movie Sets

THE latest invention in motion picture settings is being put into effect by the Paramount studios.

One elaborate set for Ernst Lubitsch's "Trouble in Paradise" is equipped with walls which raise and lower like gigantic windows.

Huge wall sections are slotted and can be raised out of the way in less than a minute. The "window wall" speeds up the work of lighting a set for it gives more room for the lights and enables cameraman Victor Milner, A. S. C., to place his camera almost anywhere.

Players are less hampered for space, also. First to work under these new conditions are Miriam Hopkins, Kay Francis, Herbert Marshall, Charlie Ruggles and Edward Everett Horton.

Another recent development in set construction is the

"open-book" set in which adjoining walls can be opened like a book to a wide obtuse angle in order to give the staff more room for movement and lights.



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### Wampas to Make Award For Best Publicity Stills

FOR THE PURPOSE of "bettering motion picture publicity, advertising and still photography," plans for the presentation of a series of annual awards of merit for these three phases of showmanship were drawn up at the organization rejuvenation meeting of the Wampas, held at the Writer's Club last night. At the next gathering of the publicity men, committees will be appointed to settle the details of the awards plan, which, if present plans go through, will embrace the work of theatres everywhere in the United States and the efforts of New York and Hollywood publicity and advertising departments.

A contemplated schedule of business activity was discussed and will be decided upon definitely at the forthcoming meeting. The program includes a series of progressive steps which it is hoped will bring about a better cooperation and understanding between producer and publicity man.

The "rejuvenation program" was compiled by a committee composed of Tom Bailey of Paramount, chairman, John LeRoy Johnston of Universal, and George Thomas of Warner Brothers-First National, and approved by publicists of all studios.

### Production on Increase in Germany

WHILE only 13 of the 28 studios in Germany were working during June, the latter part of July and August found the majority of the studios operating.

This activity in German production is taking place in spite of the poor business at the box office as it is the feeling of the producers and distributors that the political change will have a tendency of showing an upward curve in business.

It is claimed that considerable of the finance for these new pictures is being furnished by some of the leading distributors as it is their belief that better pictures right now will advance Germany's position in the international film trade.

### Government Releases Film on Sheep

THE U. S. Department of Agriculture has just released a new film on "Approved Sheep Management in National Forests." Filmed amid the mountains of Montana and California, this film is naturally highly pictorial, while serving its purpose of portraying the every-day life and duties of a sheep-herder, and showing various approved methods of sheep-herding, such as the use of pack-animals for moving the camp outfit with the sheep, assuring fresh feed and clean bed grounds daily.

The film is as yet available only in the 35mm. size, silent, and will be supplied to responsible borrowers on application to the Office of Motion Pictures, U. S. Department of Agriculture, Washington, D. C.

### Technical Experts Thrive On New Universal Sets

TECHNICAL directors are falling over each other at Universal City these days, during the filming of Tala Birell's first starring vehicle, "Nagana," a story of Africa.

Ernst L. Frank is directing the dramatic action of the picture, and James Light is dialogue director. Correctness of the African details is under the supervision of Sir Gerald Grove, who lived in the Dark Continent for many years, and the supercargo on wild animal sequence is Charles Murphy, formerly in charge of the Universal zoo. Technical supervision of scenes detailing the fight of science against sleeping sickness is in the hands of Mrs. Winifred Russell, chief technician of a local clinical laboratory.

### New Trichrome Process Invented

M. LUCIEN ROUX, a French scientist from l'Institut d'Optique, has patented a process that, if it is to be judged by its first results, bids fair to solve the problem of the trichrome picture.

The system consists of the employment of very small photographs, to the number of three in a space of 19x22mm. If desired a fourth photograph may be used which would permit a system of tetrachrome, that of the four fundamental colors. Perfect shades can be obtained, it is claimed.

The apparatus consists of a special triple objective giving three small but perfect pictures, differently colored, by three glasses—violet, orange and green. The projection apparatus objective is quadruple. The winding of the film can be done on an ordinary projection machine.

### Jimmie Howe to Europe

HAVING COMPLETED the camerawork on Erich von Stroheim's production, "Walking Down Broadway," James Wong Howe is leaving for Europe, to combine a much-needed vacation with the making of background shots in England, France, Germany, Italy and other locations for forthcoming Fox productions.

### Freund Finishes First as Director

AFTER SEVEN WEEKS of intensive filming, Karl Freund, A. S. C., has finished the direction of Universal's thriller, "The Mummy," which marks the debuts of Freund as a director and Karloff as a star. Charles Stumar, A. S. C., was the cinematographer.

### Sound Effects Fading Out

IN LESS THAN A YEAR artificial sound effects will be obsolete according to a statement made by Murray Spivack, RKO supervisor of sound.

"Artificial sound effects have met their doom in the rapid strides made in recording," said Spivack. "We are now able to record actual sound effects in almost every instance. At present only 25 per cent of the sound effects on hand at RKO studios are in use. The remainder are lying idle and will remain that way."



### Estonia Increasing Sound Equipment

It is estimated that 33 of the 82 picture theatres in Estonia are wired for sound. According to plans in that country twelve more houses will go in for talkies this year.

The sound on film reproduction equipment in use at present in Estonia theatres varies in its source. Gravor, Zeiss-Ikon, Klangfilm, Bauer, Selenophone and a few American makes comprise the type being purchased.

German manufacturers have thus far been leading suppliers for sound apparatus.

Picture apparatus is included in the list of so-called monopolized commodities by the government.

### Sound Pictures on Increase in India

Of the six film companies in Bombay which produce talking motion pictures five of them use American sound recording units. It is expected according to reports that the other local motion picture producers will probably start the production of talking pictures soon. The main difficulty in selling recording units is said to be due to the financial condition of most of the companies.

The majority of the Indian producers have only a small capital and not much equipment. In producing silent pictures, the cameras are the chief item of equipment. The majority of the producers do not have any lights.

The companies producing talking pictures at Bombay do not have soundproof studios but work only late at night when the city is comparatively quiet. Lights are, of course, used by these companies.

The laboratory equipment of the producers is said not to be adequate. There are some small laboratories which work

for those companies which do not have their own laboratories. It is claimed according to reports that the development of the film in most instances is not well done.

### Adolph Lomb Dies At Age of 66

ADOLPH Lomb, vice-president of the Bausch & Lomb Optical Company, died at his home in Pittsford, N. Y., a suburb of Rochester, on Sept. 30th, after a brief illness. He was 66 years old.

Mr. Lomb, the eldest son of Capt. Henry Lomb, the co-founder of the Bausch & Lomb Optical Co., had been connected with the optical institution established by his father and John Jacob Bausch for 53 years. He entered the company when a young lad of 14, leaving temporarily to continue his university studies.

Besides being an executive of the Bausch & Lomb Company Mr. Lomb was identified with a number of scientific and patriotic societies, chief among which was the Optical Society of America. Mr. Lomb had been treasurer of that organization since its inception and one of its most beneficent financial supporters.

Carrying on a work instituted by his father, Mr. Lomb was interested in the welfare and activities of Civil War Veterans and the Sons of Civil War Veterans. He was a trustee of the Henry Lomb Camp, Sons of Union Veterans.

He was born in Rochester in 1866; was a graduate of the University of Rochester, Class of 1892, and had also taken advanced work at the Massachusetts Institute of Technology and the University of Berlin, Germany.

He leaves his mother, Mrs. Emilie Klein Lomb, widow of Capt. Henry Lomb, a brother, Henry C. Lomb of New York City; a nephew and two nieces. Mr. Lomb was unmarried.

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Among the many scientists and educators who sent messages of condolence to members of Mr. Lomb's family or to his fellow executives in the company, were, Dr. Nicholas Murray Butler, president of Columbia University, New York City; Dr. E. C. Crittenden of the United States Bureau of Standards at Washington; Dr. F. K. Richtmyer, Professor at Cornell University and editor of the "Journal of the Optical Society of America"; M. J. Julian, director of the Better Vision Institute, of New York City; and Dr. James D. Southall of Columbia University.

### Huse Elected Chairman S.M.P.E.

EMERY HUSE, A.S.C., and Technical Editor of The American Cinematographer, on Tuesday night, October 26th was elected to the chairmanship of the Pacific Coast Section of Motion Picture Engineers.

Huse is the West Coast manager of the motion picture department of the Eastman Kodak Company. He has long been an active member of both the American Society of Cinematographers and the Society of Motion Picture Engineers and is considered one of the foremost authorities in the industry on laboratory methods, and principles.

Huse, as chairman of the Pacific Coast section of the Society of Motion Picture Engineers, succeeds Dr. Donald Mackenzie.

### Academy Recognizes Shorts

SHORT SUBJECTS, which rival the longer feature films for popularity with motion picture patrons, will be given appropriate recognition for the first time in the annual awards of the Academy of Motion Picture Arts and Sciences this year.

From more than 50 short films, which have been submitted by seventeen companies, three pictures will be chosen to receive certificates of honor at the Academy's annual awards banquet in November.

The short subjects have been divided into three groups for awards consideration: 1, mechanical or animation; 2, comedies; 3, novelties, including all educational, news, travel, animal and scenic films.

The pictures submitted will be screened during October 24-26 before a committee of fifteen members of the Academy, who are engaged in the production of short subjects. The committee has been divided into groups of five, each group to vote on a type of film in which its members are not interested. The nomination groups are:

Comedies: Walter Disney, Leon Schlessinger, Sol Lesser, Jack Cummings, Walter Futter.

Animations: Louis Brock, Warren Doane, Stan Laurel, Mack Sennett, E. H. Allen.

Novelties: Arthur Ripley, Roy Disney, Oliver Hardy, Henry Ginsberg, Charles Christie.

Three subjects chosen in each class then will be put before the committee and the executive secretary of the Academy for a final elimination vote.

### The Magic Carpet of Movietone

WE HAVE SEEN a number of these interesting short subjects at different times. Since the photography in them is almost always far above the standard of the average travel shorts, and especially because they evidence a real appreciation of dramatic cinematography, direction and cutting, it is a crying injustice that the cinematographers who make them are not given the screen credit that they deserve.

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## Keeping Cameras Running

Continued from Page 9

cialization that is necessary in the efficient making of cameras. Movement repairs are entrusted only to mechanics who have specialized in the assembly and repair of movements for years. Lens and optical adjustments are handled solely by trained optical workers. Camera-body repairs are detailed only to specialists in this phase. Assembly and dis-assembly are similarly specialized, as is every phase throughout the list.

The entire question of keeping studio cameras operating perfectly therefore simmers down to perfection of servicing, perfection of adjustment, and perfection of the rare major repairs. Many of the factors that enter into each phase of the problem appear trifling; but "trifles make perfection—and perfection is no trifle." In these days of studio-owned cameras, the budget allotted to maintenance of the camera equipment can at best be only a small fraction of the cost of the studio's output; but if this trifle is neglected, its results will quickly be felt along the whole line of production, in both damage to the completed product, and increased cost due to lost time, retakes and the like. And in these trying days more than ever, the economy that counts is the economy that is felt in the long run.

## New Polish Sound Film Studio

The first serious attempt to equip and operate an authentic type of sound-recording studio in Poland is now nearing completion. Several experiments have been tried with "bootleg" equipment, but they have not given much satisfaction.

The latest type of sound-reproduction equipment is now being installed at the D'Alben Studio, Ul. Wolska 42, Warsaw, by Tobis Klangfilm of Berlin. The announcement is made in this connection that Tobis Klangfilm now operates under a patent exchange agreement with American electric firms and that in the distribution of markets Poland is assigned to Klangfilm.

The new D'Alben Studio is expected to be in operation within a week or two. Its first production will be "The Moving Palace," a sound film based on the Kosowski novel, which Richard Ordynski will direct for the Orton Company—of which Mr. Ordynski is also the managing director.

## Australian Newsreels to Combine

According to an announcement from the managing director of Cinesound Productions, Ltd., Sydney, producers of the Cinesound Review, that company has absorbed the Herald Newsreel produced by the Herald & Weekly Times, Ltd., of Melbourne. In the future the newsreel will be known in Victoria as the Herald Cinesound Review, but will continue to be known as the Cinesound Review in New South Wales and Queensland.

Cinesound Productions, Ltd., will have complete control and will acquire the plant of Australian Sound Films Pty., Ltd., the subsidiary which controlled the Herald Newsreel. The Melbourne Herald, however, will continue to use its publicity power for the benefit of the combined newsreel.

## CAMERA MAN

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## Editors Join Academy

MOTION picture film editors, who are members of the technicians branch of the Academy of Motion Picture Arts and Sciences, plan to organize a film editors section within the Academy to deal with the specialized activities of their craft.

I. James Wilkinson, film editor representative on the technicians branch executive committee, presided at a section organization meeting of leading film editors at the Academy offices.

The Academy technicians branch now has three sections: Sound, Photographic and Art Directors.

## Reorganization of Russian Film Industry

Sowkino, the Soviet State film organization, which monopolizes production and distribution in Russia, is to be reorganized according to Governmental instructions, reports American Trade Commissioner George R. Canty, Berlin. Russian film production will henceforth be handled by the following trusts: Rus-Film, Bel-Film, Ukrain-Film, and Wostok-Film. A special trust will be in charge of film constructions, and another one, entitled "Tech-Film" of educational and cultural films and also newsreels. It is promised to produce 60 long editorials and 100 shorts in 1932-33.

## Air Line Shows Films to Promote Travel

United Air Lines are using motion pictures for promoting interest in air travel. A 16 mm. 800 foot film, "Across America in Twenty-seven Hours," is being shown by the Air Lines' traffic representatives before luncheon clubs, business men's organizations, women's clubs, colleges, and high schools. Ten Bell & Howell Filmo projectors are being used for presenting the movies in various parts of the country.

The film consists of a pictorial narrative of a flight from California to New York and includes views of planes flying over scenic and historic country, particularly the western mountain areas. There are shots of a big tri-motored transport with a background of the Rockies and the Sierras, and aerial views of fourteen cities flown over on this 2700-mile flight from the Golden Gate to the Statue of Liberty.

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**Thru the Lens of the Critic**

Continued from Page 13

could and should have been an outstanding example of cinematography. Instead, its treatment is constantly wavering between the mood of "Shanghai Express" and that of "The American Tragedy." Had either treatment been consistently maintained, the film would have been excellent; as it is, it is neither fish, flesh nor fowl. When I saw the picture, it was over 2,000 feet too long; since then, I understand, it has been cut down and the remains patched together with a series of the exaggeratedly long lap-dissolves that gave Herr von Sternberg such pleasure in "Dis-honored." I hope that Glennon's present engagement at RKO will give him a better opportunity to do the really fine work of which he is capable.

**"MEN ARE SUCH FOOLS"**photographed by **Charles Schoenbaum, A. S. C.**

THIS production shows how valuable a good cameraman can be to the independent producer working on a moderate budget. Charles Schoenbaum's photography is quite the best thing about the picture, adding much-needed richness, and production value to a high degree. He has photographed the principals very well, and used excellent taste in his treatment of the prison scenes. There is some unusual optical photomontage work in the sequence wherein Leo Carillo learns that his wife has betrayed him. The direction is very poor, and the atmosphere of the opening sequence, which is laid in Vienna, is not in the least convincing. By all odds, Schoenbaum's photography is the best thing in the picture.

**"RAIN."**photographed by **Oliver T. Marsh, A. S. C.**

IN THIS production, Oliver Marsh's cinematography shines forth like a lighthouse at midnight. He really rises to great heights in "Rain"—the more so because he has almost completely abandoned his normal style of work. "Rain" is not, photographically speaking, characteristic of Oliver Marsh; but it is extremely characteristic of Somerset Maugham's story. In addition, the photography is technically superb. Two such pictures as "Rain" and "Faithless" coming in succession from Marsh's camera are a high tribute in themselves to his artistry and versatility.

The chief criticisms of "Rain" must be aimed at Director Lewis Milestone. Normally, "Milly" has an acute sense for cinematics, but in this instance he has managed to go far astray. Aside, of course, from the orgy of miscasting—with which this department is not concerned—"Milly" has apparently gone out of his way to abuse the camera. The earlier sequences of the picture are saturated with moving-shots. "Milly" is sufficiently the cinema craftsman to know that an excess of perambulation is not great direction; the "Front Page" proved that; but in "Rain," con-

fronted by almost the same problem that arose in "The Front Page," that is, a relatively small set in which practically all of the action must occur, Milestone has run amuck with his perambulator.

The United Artists studio heads, too, should have been wiser than they proved themselves to be. All of the dailies on "Rain" were developed in the studio laboratory to which Marsh was accustomed—but the release print used for the World Premiere was produced by a commercial laboratory which had never seen the negative before. Perhaps, though, they were generously trying to bring the photography down to the level of the rest of the production.

**"THE BIG BROADCAST"**photographed by **George Folsey, A. S. C.**

THIS ONE SHOWS the difference between New York and Hollywood production. George Folsey has done some reasonably effective work in Paramount's New York Studio, but nothing comparable with the best parts of this, his first Hollywood-made film. The photographic and directorial treatment of the first half of the film is excellent; but as the Big Broadcast itself begins to go on the air, both director and cameraman have to take a back seat while the radio favorites strut their stuff *ad nauseam*. Many of these scenes were made, perforce, in New York, and in them the technical quality is marked by inferior to that of the Hollywood-made portions. The treatment of the suicide sequence is outstanding in conception and execution; it is quite the high spot of the picture.

**"RACKETY RAX"**photographed by **L. William O'Connell, A. S. C.**

VERY good, high-key photography in a story which does not permit a great deal in the way of pictorialism. The treatment throughout is excellent, and there are a number of little tricks, such as showing a closeup of a football programme and then panning up from it to a long-shot of the crowds entering the stadium, which may well be used by the amateur. The sets for this picture, described by their designer, Gordon Wiles, in a recent article in this magazine, are notable for the production value achieved with relatively small and inexpensive sets. The lighting of the night-club dance numbers must be criticised, as it is very badly overlit. Aside from this, however, O'Connell has done well.

**SHERLOCK HOLMES**photographed by **George Barnes.**

THIS PICTURE exhibits more of George Barnes' consistently fine photography. Being a mystery story, the photography is in a low key throughout; excellently handled, and with a number of extremely interesting effect-lightings. The photo-dramatic moods are excellently sustained, and, despite the frequent effect-lighting of the sets, Barnes



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has not indulged in any extremes in creating either set lighting or in effect-lighting his characters. His treatment of the players, by the way, is excellent, and consistently natural.

Wm. K. Howard's directorial penchant for perambulation has been restrained very creditably in this production, but he repeats his device of trailing a length of gauze before the camera in some of the introduction transitions; coming so soon after his use of the same device in "The First Year," this seems rather poor taste, and detracts from Howard's undeniable originality. It is especially regrettable after the striking effectiveness of the opening shot of the picture.

The process work, of which there is quite a bit, naturally, is excellent.



#### "NIGHT AFTER NIGHT"

photographed by **Ernest Haller, A. S. C.**

THE photography of this picture is excellent, and though artistic, does not interfere with the progress of this swift-paced story. Haller's lighting shows the players off to good advantage, and is extremely natural throughout. Some of the night-effect interiors are especially noteworthy. The optical effects used to denote the passing of time are intriguing, though slightly over-done. In the early sequences there is a deal too much panning across empty sets, follow-shots of unimportant characters walking about, etc. On the other hand, the introduction of Constance Cummings, seated alone at a table in the speakeasy, calls loudly for a "zoom" shot which is missing. The manner in which the opening titles are tied in with the story shows considerably ingenuity, and provides a smoothly flowing opening.



#### "THE PHANTOM PRESIDENT"

photographed by **David Abel, A. S. C.**  
process photography by **Farciot Edouart**

EXCELLENT commercial photography, which is all that could be asked of a story of this type. David Abel has made the camera deal far better with George M. Cohan than even Cohan in his most optimistic moments could have expected. The use of angle-shots in the convention sequence is interesting and effective, though possibly a bit drawn out. Cohan plays a dual role which is made possible by some of the finest and most intricate process photography seen in some time. Farciot Edouart deserves great credit for this, especially since Cohan's impatience forced much of this intricate work to be done under unusual pressure.



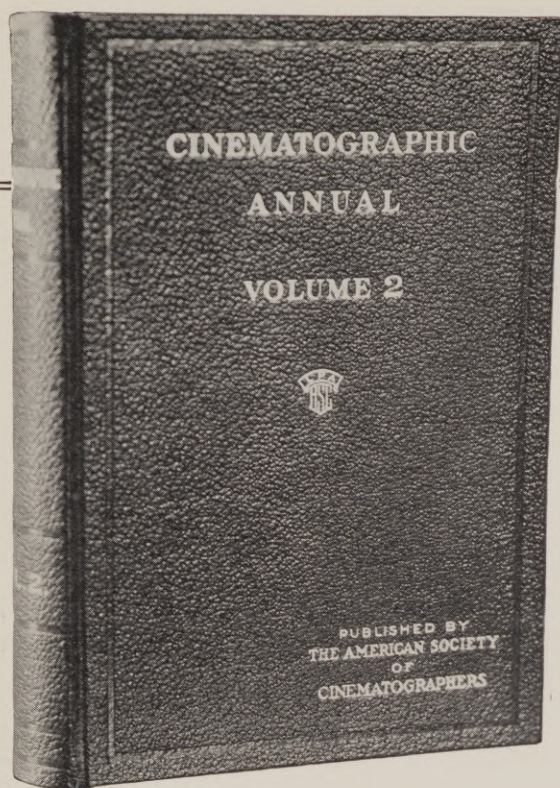
#### "LIEBE IST LIEBE"

photographed by **Gunther Rittau and Otto Baecker**

HERE is a German production which is photographed in the American manner, and photographed extremely well. The photographic quality is excellent, beautifully but not exaggeratedly soft, and the lighting throughout is natural, without exaggerated back-lighting, but with sufficient back-light to enhance the modelling. The exteriors are very well handled. Throughout, the moods are well sustained, but the picture shows that two different men made different parts of the film. The optical effects are quite good, and the several sequences portraying rhythmic movement according to the Lubitsch-Mamoulian-Rene Clair school are very interesting. The treatment of the time and place transitions are extremely clever, and could well be emulated by amateurs. In the earlier sequences there is rather too much dollying, and the opening sequence, establishing the leading man as a telegraph-clerk, shows the influence of Karl Freund's "Berlin" very strongly.

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### New Film Shows How to Save Soil

"Save the Soil!" a 2-reel silent film, is a motion picture released recently by the U. S. Department of Agriculture. It presents the question of soil conservation as it concerns the farmer and the nation as a whole.

The film shows various ways of conserving soil fertility; terracing and cover-cropping to prevent erosion, rotation, the use of legumes to build up the nitrogen and humus content of the soil, the control of waste owing to fire, the use of manures, and of commercial fertilizers when necessary.

This film includes sequences showing the long pilgrimage the inhabitants of the Caucasus make each year in search of grass for their flocks, and scenes illustrating the Oklahoma "rush" of 1889.



### Record Use of Electricity Is Set By Studio

All records for consumption of electrical energy by the Paramount studios were shattered during the past month. Employment of electricians broke all records since 1928.

With fourteen films before cameras the past month and heavy production slated for October and November, good times have returned for studio employees, according to Earl O. Miller, chief electrician at Paramount.

Electricians at work totaled 205 daily.

Electricity consumed reached the unprecedented figure of 746,000 kilowatt hours, topping all marks since Paramount first produced a motion picture in 1911. The monthly average is 225,000, with 350,000 the peak for 1931.

More than 100,000 kilowatt hours were burned on the settings of "A Farewell to Arms" which co-stars Helen Hayes and Gary Cooper. Cecil B. De Mille's "The Sign of the Cross" reached the new peak of 125,000 kilowatt hours in a single month.

At the studio, 586,300 kilowatt hours were consumed. Companies on location accounted for the 159,700 balance.



### Technicians Form Society in India

UNDER THE title of the Motion Picture Society of India, the technicians, scientists and executives of that country have banded themselves into an association to promote a more scientific interest in the entire technique of motion pictures, both silent and talkie.

According to the announcement from the secretary of the Society this phase of the industry has not received a great deal of attention in India. The report also indicates that the movement is meeting with a fine response.

The president of the society is K. H. Vakil, Art and Dramatic Critic of the Bombay Chronicle and the secretary is K. S. Hirlekar, who is the Technical Advisor in India of the Agfa Photo Company. The vice-presidents are: A. Fazalbhoy and M. B. Patel. Dr. S. R. Mulgaokar is the treasurer.

The objects of the society as outlined in the constitution are sevenfold: To provide a meeting place for exchange of views of all interested; To provide a channel of communication with similar and allied associations in other countries; Arrange suitable technical lectures and demonstrations; To maintain a suitable experimental laboratory and library for the benefit of the members in particular and for the general public if possible; To investigate problems peculiar to the industry; To conduct an organ for the spread of knowledge regarding the latest information pertaining to the film and allied industries; To educate the general public in the utility of the film industry from a social, industrial and educational point of view.



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